

SHIPPING WORLD



VOL. 145 No. 3558

18 OCTOBER 1961

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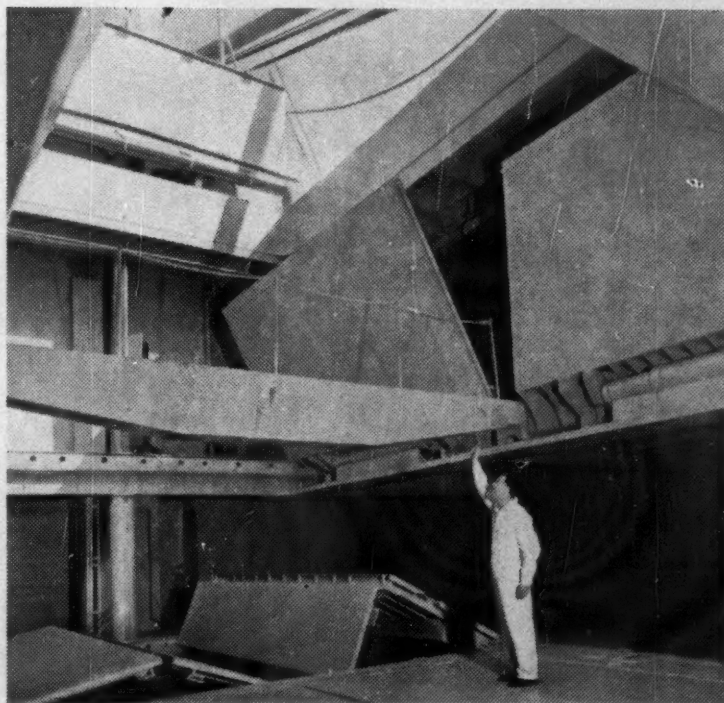
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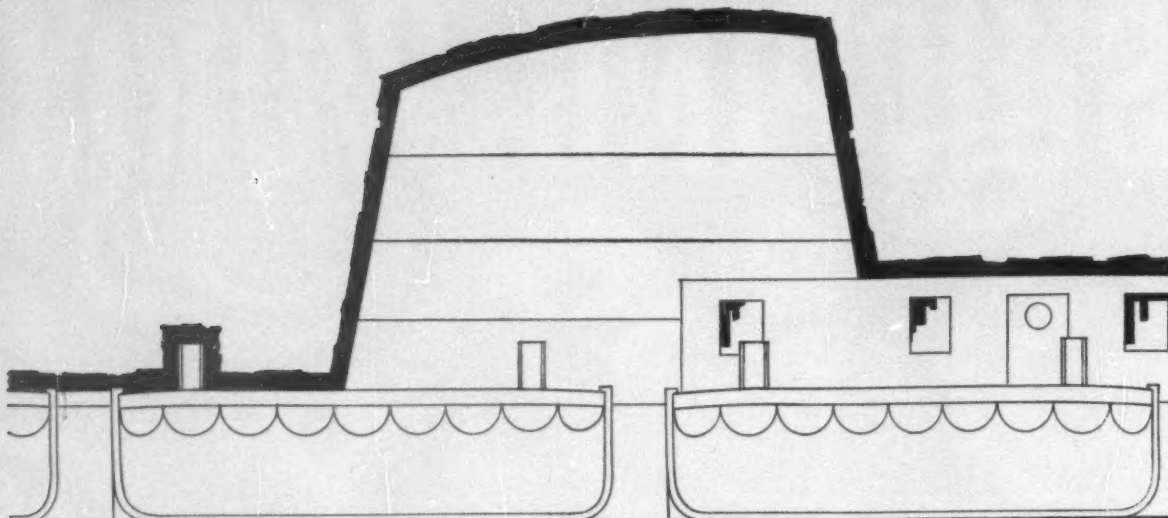
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The Carleton Restaurant, SS "Empress of Canada". Main lighting provided by cold cathode tubes in coves and laylights, supplemented by tungsten recessed ceiling fittings and hot cathode wall brackets. (Top left)

Main lighting in the SS "Canberra" tourist dance space is by semi-recessed tungsten ceiling fittings. Heavily incised 'Perspex' bricks enclosing tungsten lamps form the diffusers. Surrounding the lowered ceiling cold cathode tubes are concealed in coves. (Top centre)

On the SS "Oriana", concealed hot cathode lamps provide the entire lighting in the Monkey Bar. (Top right)

"Windsor Castle", first class lounge, employs tailor made cold cathode tubing in the delicately curved ceiling cove. (Lower left)

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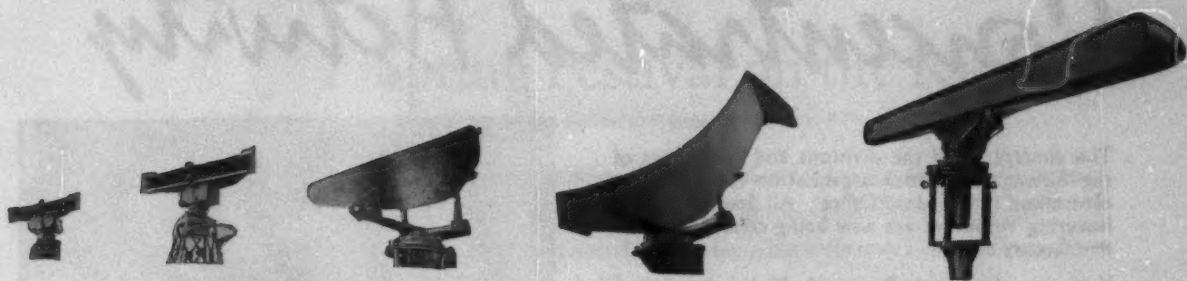
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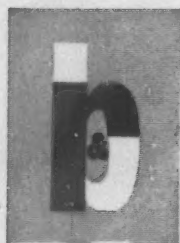
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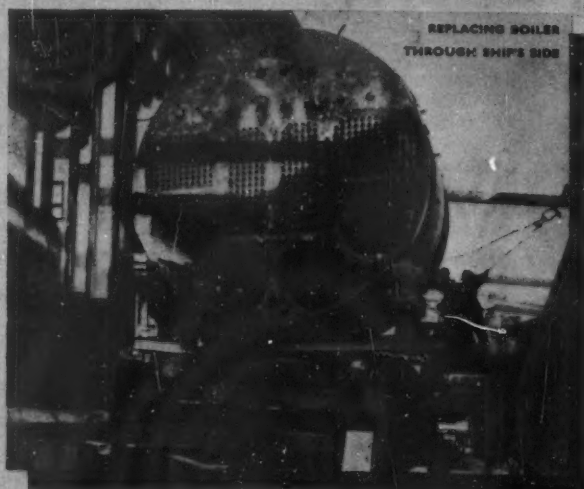
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THE SHIP IN ART

Spring Festival on the River

Detail from a painted scroll of the Ming Dynasty, A.D. 1368—1644

Unlike European painting, the format of which has derived mainly from its architectural setting, much of the greatest Chinese art takes the form of silk scrolls which are not intended to be hung but were stored in cylinders to be taken like books from the shelf and unrolled before the spectator. These scrolls were often of considerable length and the *Spring Festival on the River* is 33 feet long.

In an extraordinarily complete picture of Chinese medieval life the artist here tells the story of the whole festival holiday, from dawn till dusk.

Junks and sampans virtually identical in design with those shown in this excerpt can still be seen today in modern China.



(Reproduced by courtesy of the Metropolitan Museum of Art, Fletcher Fund, 1947, The A.W. Bahr Collection)



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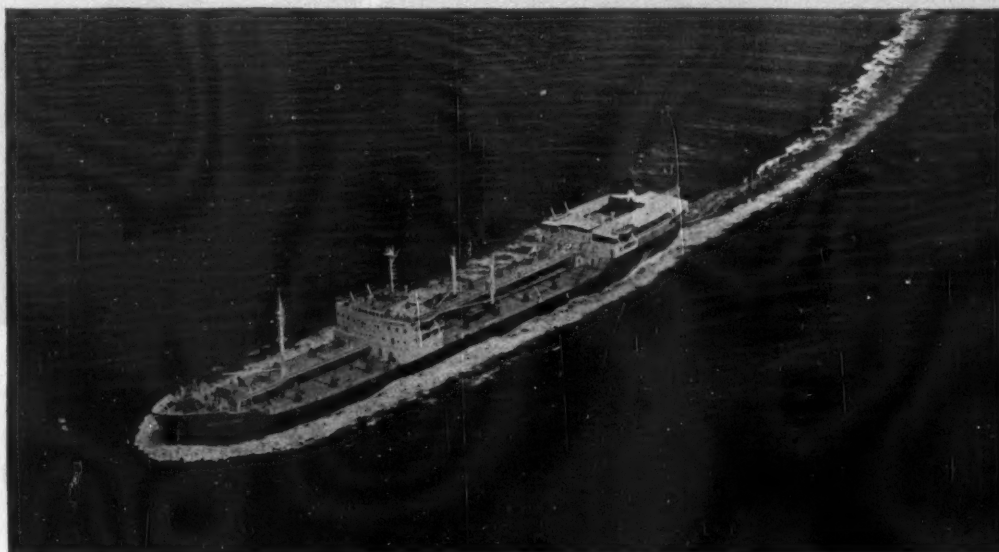
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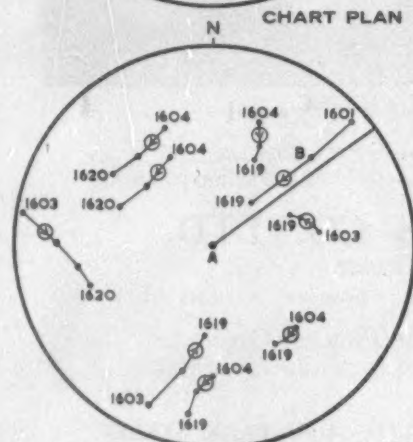
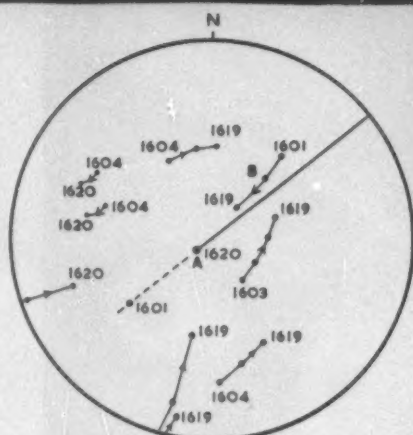
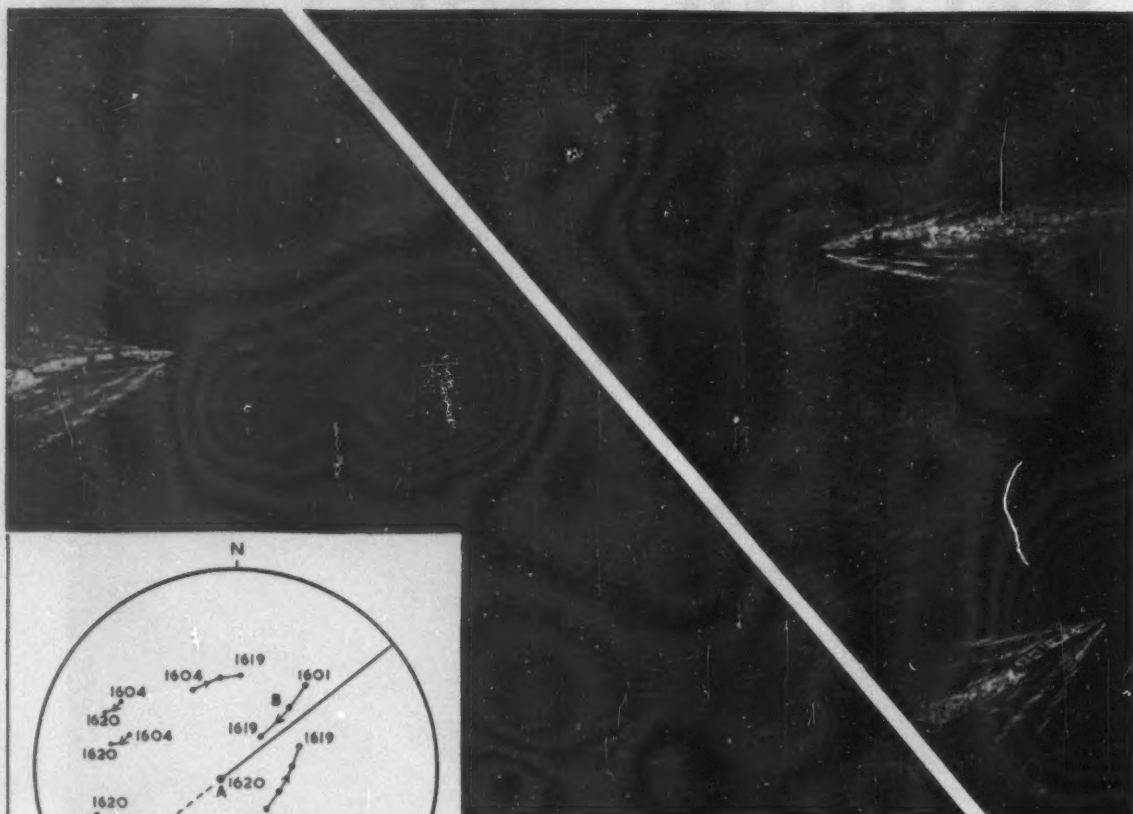
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No. 2



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Vol. 145

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No. 3558

| | | | |
|--|-----|---|-----|
| Bridge Forward or Aft? | 299 | Sea Water Distillation Plant | 311 |
| Current Events | 299 | Davit-Launched Lifteraft | 312 |
| On the "Baltic" | 302 | News from Overseas | 313 |
| Analysis of British Tonnage | 303 | Recent Technical Developments | 314 |
| Recent Publications | 304 | Oil Topics | 315 |
| New British & Burmese Cargo Liner | 305 | Recent Ship Sales | 315 |
| The Development of Shell Plates | 307 | New Contracts, Launches, Trial Trips | 316 |
| Glass Reinforced Plastic Boats | 309 | Maritime News in Brief | 317 |

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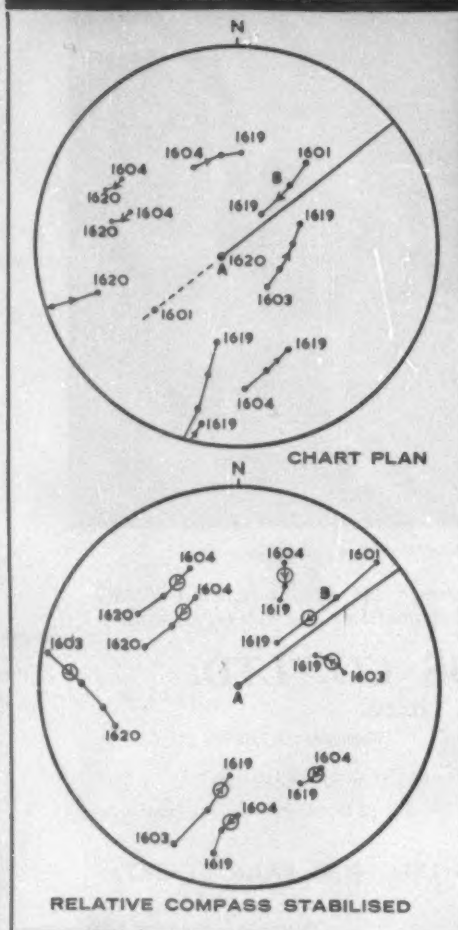
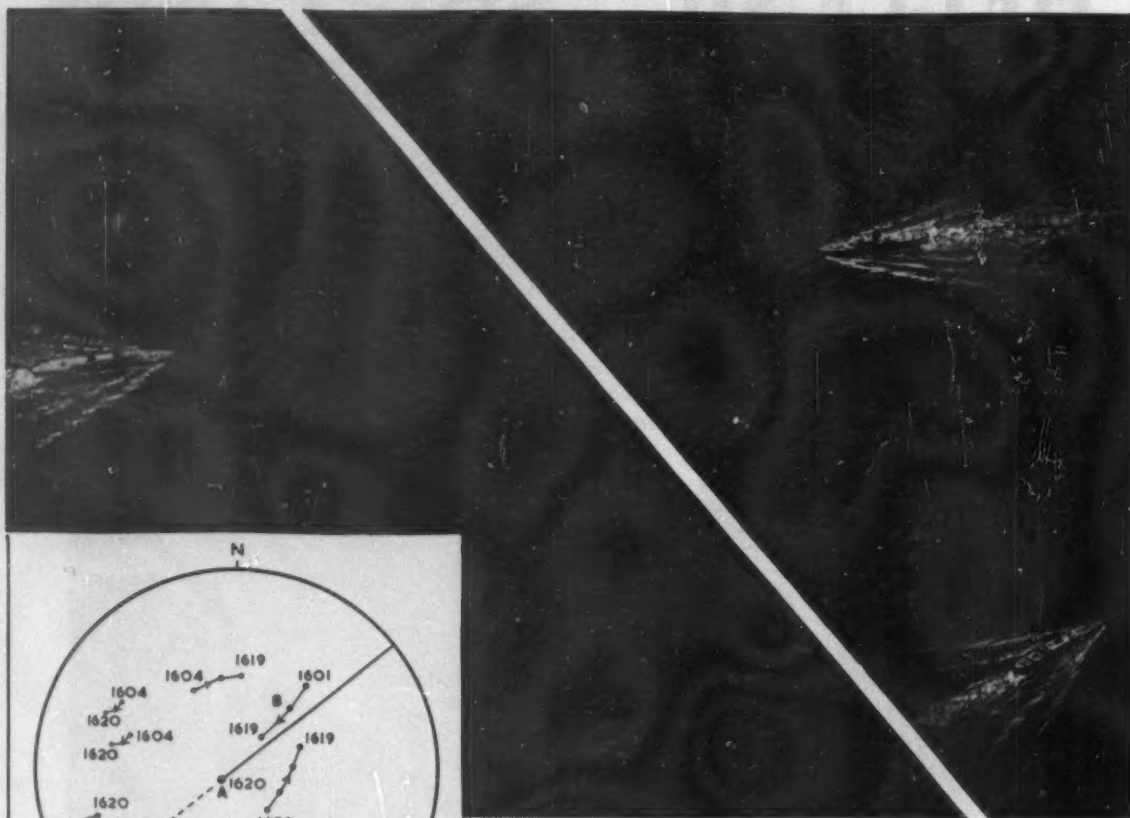
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| | | | |
|---------------------------------------|-----|--|-----|
| Bridge Forward or Aft? ... | 299 | Sea Water Distillation Plant ... | 311 |
| Current Events ... | 299 | Davit-Launched Lifteraft ... | 312 |
| On the "Baltic" ... | 302 | News from Overseas ... | 313 |
| Analysis of British Tonnage ... | 303 | Recent Technical Developments ... | 314 |
| Recent Publications ... | 304 | Oil Topics ... | 315 |
| New British & Burmese Cargo Liner ... | 305 | Recent Ship Sales ... | 315 |
| The Development of Shell Plates ... | 307 | New Contracts, Launches, Trial Trips ... | 316 |
| Glass Reinforced Plastic Boats ... | 309 | Maritime News in Brief ... | 317 |

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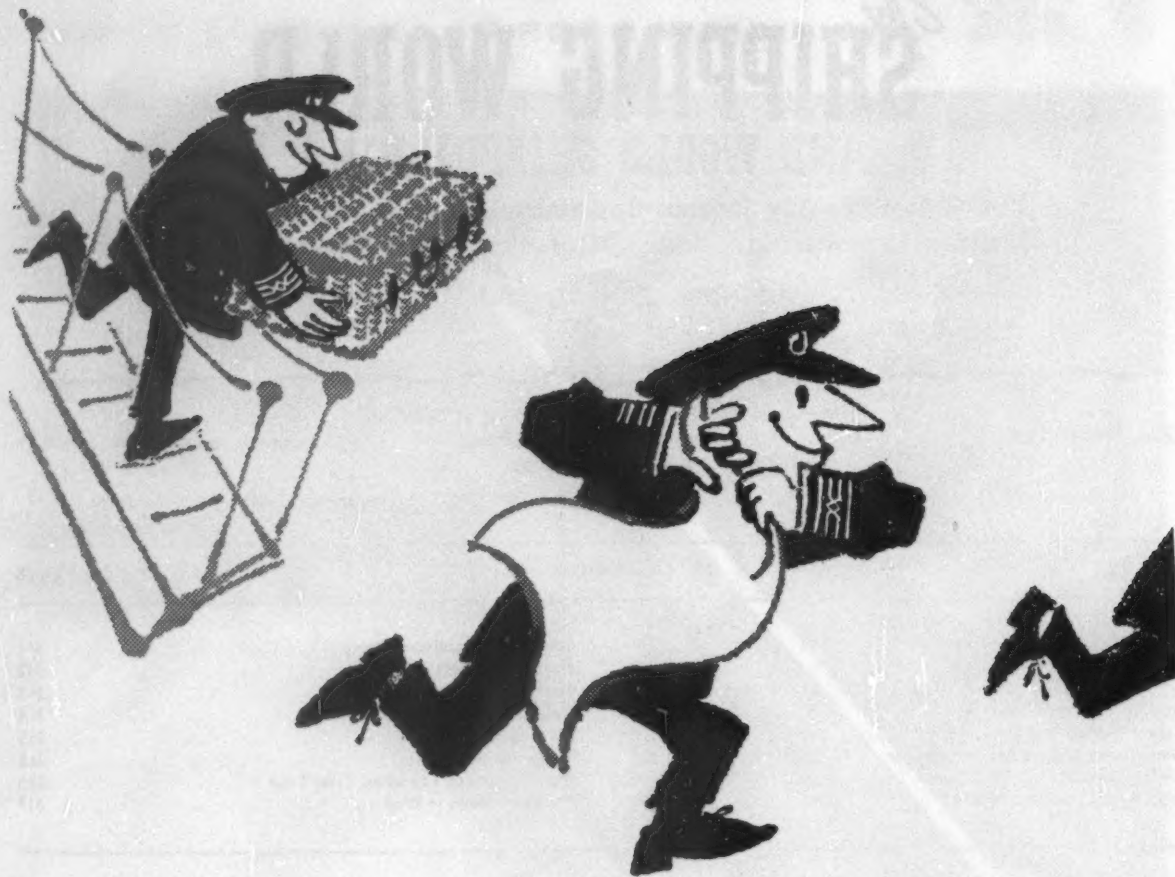


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THE SHIPPING WORLD

BRIDGE FORWARD OR AFT?

BRITISH SHIPOWNERS have been a good deal more cautious than their Scandinavian colleagues about adopting the "all aft" design for large ships. The grouping of all the accommodation and the bridge in a single unit immediately above the engine room has obvious advantages, and when the engine room is amidships it is now almost a standard arrangement. When the engine room is aft it involves navigating the ship from a point nearly at the stern, and the desirability or otherwise of this has been a disputed point for a long time. In the current issue of *The Pilot*, the magazine of the U.K. Pilots' Association, there is an article deploring the tendency for very large ships to be built with this arrangement, and there is no doubt that some of the points made are sound. Quoting the example of a bridge-aft tanker of 42,000 dwt that calls at Fawley, it points out that the bows of the ship are 200 yards from the bridge, so that binoculars have to be used to see what is happening on the forecastle; that the leading tug is nearly 300 yards away, so that communication by normal means is nearly impossible; and that when this ship is berthing at Fawley, where the jetty faces are 250 to 300ft in length, the pilot never gets to the jetty at all.

These are obvious disadvantages that additional experience can do no more than ameliorate. These very large ships are more awkward to handle when berthing, and the cost of repairs to them following berthing damage may well be higher than with smaller vessels, so that it is worth while to design them for easy berthing. The suggestion made in the article is that a skeleton bridge should be provided in the normal position slightly forward of amidships. This is of course done in some very large tankers. It is popular with pilots, but possibly less so with ships' officers. Scandinavian ships with bridge aft frequently have a conning position in an enclosed crow's nest on the foremast.

This, however, is not of much use to a pilot berthing the ship, because without bridge wings he cannot see down the side of the ship, and this he must be able to do. A solution that might be considered when planning a large tanker is to use some of the savings realised by concentrating the accommodation to pay for a transverse bow propulsion unit. This latter gives the pilot an entirely new degree of control over the ship and reduces considerably the dependence on tugs. Experience with *Canberra* and *Oriana*—the first two large ships to have transverse bow propulsion—has been very satisfactory, though the power provided at the bows could with advantage have been larger.

For ships of rather smaller size, the bridge-aft layout seems to be generally accepted. It may be recalled that three years ago a paper on this subject was read to the Honourable Company of Master Mariners by Capt A. M. Atkinson, and following this paper the technical committee of the Honourable Company attended the trials of a ship with bridge aft. This was a 15,000-dwt ore carrier, and the general opinion of the committee seems to have been that on balance the bridge-aft position was the best, once experience had been gained with it. A point in favour of conning from aft which emerged from the visit is that the pilot is particularly well placed to judge the movement of the stern, which is the most vulnerable part of the ship.

It would seem that what makes the bridge-aft arrangement awkward for pilots in very large ships is not so much the principle of navigating from aft, as the long distances involved. If this is so, then the correct conclusion may be that there is a size limit above which the disadvantages of siting the bridge aft outweigh the advantages. Time will show what this limit is, and whether it is altered by the provision of transverse bow propulsion.

Current Events

Liberty Ship Price Rises

IT NOW SEEMS more than likely that before long a standard-type ship may realise something in the region of £150,000, and so mark another "peak" value level for such vessels. As yet the highest price reported has been the £143,000 arranged for the Nassau-owned *Bimini*, and although late indications suggest that the sale has fallen through it at least puts a value on the ship. In any case there are a number of Liberty types offering for sale and

asking £145,000 and £150,000, although it is significant that as yet there are no liner company-maintained vessels of this type offering, and buyers are not likely to show a great deal of interest in the actual vessels presently available. They are in general Greek-owned Liberty ships, and hardly as good as the liner company-owned vessels which might attract buyers if they were available. Obviously the owners who have placed their standard-type ships on the market are attracted by the prospect of

getting up to £150,000 for such a ship, although at present there is no indication that any buyer is prepared to pay such a price. To make a profit out of running a Liberty ship at this sort of price, owners today must be prepared to run them cheaply, probably under a flag of convenience. Some calculations on these lines appear in "On the 'Baltic'" on a later page. The present ideas of £150,000 for a good class Liberty ship are of course a far cry from a few years ago, when the absolute peak value for such a ship was registered at £670,000. In the meantime, of course, the ships have got older, and it seems unlikely that as a class they will ever command anything like these prices again. Owners of such ships are not presently inclined towards selling for demolition, although as was reported in THE SHIPPING WORLD last week, Japanese breakers bought a "Park" type, the *Lord Tweedsmuir*. However they had to pay £21 11s per ton light displacement to get her, and this was looked upon as a highly satisfactory price to the sellers.

Union-Castle Service Change

AFTER the withdrawal from service of the Union-Castle liners *Durban Castle* and *Warwick Castle* during the summer of next year, the three cabin-class liners *Kenya Castle*, *Rhodesia Castle* and *Braemar Castle* will maintain a shortened version of the present Round-Africa Service. The new service will operate to Durban by way of the Mediterranean and East African coast, returning from Durban by the same route, and will commence with the sailing of *Kenya Castle* on 19 April 1962. The service will now run on Thursdays from London at regular four-weekly periods. This is in comparison to the present scheme where sailings vary between 3½ to as much as five weeks. Passengers wanting to have a trip round Africa can still do so by connecting with the mail steamer at Durban, changing ships from the mail steamer to the intermediate vessel or vice versa. Occasional round-Africa trips will be run by the intermediate liners, but these are expected to be few and far between.

Early History

THE Union-Castle intermediate service has a long history, dating back to the original Union and Castle Lines. It was maintained towards the end of the last century by mail steamers that were past their prime. The first ship to be specifically built for the intermediate service was the *Doune Castle* in 1890 for the Castle Line. The chief competitor, the Union Line, soon saw the red light and built a series of 4,700-ton vessels in 1893. Competition was keen, but the companies progressed and the route was gradually lengthened until vessels sailed right round Africa, alternately going out by the east or west route. The heyday of the route was probably in the inter-war years, when several large vessels were built for the service ranging in size from the 10,000-ton *Dunbar Castle* to the *Durban Castle* and her sister ship *Pretoria Castle*, which was later renamed *Warwick Castle*. The three vessels that are to carry on with the new service were built in 1951 and 1952 and have all recently undergone refits to improve their accommodation.

Seminar on Seakindliness

THE SEMINAR which is being held at present at the National Physical Laboratory, Teddington, is being attended by 150 naval architects and technical staff from British shipping companies and shipyards. Extending over two days (yesterday and today), it will give those attending it an insight into the work which is now being done to improve the seagoing qualities of ships. In all there will be nine speakers, drawn from the four bodies concerned in the current research programme in this field. These are the British Shipbuilding Research Asso-

ciation, the National Physical Laboratory, the National Institute of Oceanography and the Admiralty Experimental Works, Haslar. The work now being done is essentially the opening up of a new subject, since although naval architects have accumulated a good deal of practical experience on hull forms most suitable for rough waters, no real scientific approach has been made to the subject. This has had to await the development of the theory of the energy spectrum which allows the irregular waves in the model tank, and the construction of suitable model testing facilities. There has also been evolved a theoretical treatment for the study of shipmotion in irregular waves, and this is being explained at the seminar. It is likely to be some years before this work reaches the state where it will lead to improved hull design, but it is no bad thing for the industry to have a first good look at what is being done.

Rowan & Boden's New Premises

THE first step in the centralisation of the activities in Scotland of the Rowan & Boden group of companies has been taken with the opening of the new headquarters of the company at Renfrew Road, Paisley. Rowan & Boden Ltd has at present three factories on the Hillington Industrial Estate, near Glasgow. At Birmingham it has a plastics factory at Tyesley, and one coming into operation at Redditch, Worcestershire. The group, which commenced operations in Greenock 52 years ago as ship furnishers, has expanded greatly in recent years both in extent and diversification of interests. It still supplies furnishings to roughly 70 per cent of all oceangoing ships built in British yards, but the furnishings section is also covering a steadily increasing amount of business on land—for hotels, clubs and office buildings. In addition, over the years the company has extended its interests into plastics, floor coverings of a wide variety of types, and weather decking for ships. The headquarters of the company have already been moved from the old offices in Bothwell Street, Glasgow, to Paisley. The company's three factories—the furnishing division, Roanoid Plastics Ltd and Korkoid Decorative Floors—are close together on the Hillington Industrial Estate, and these will be moved to Renfrew Road as the leases expire—the Korkoid division next year, the upholstery factory in 1963, and the plastics division in 1968.

Marine Underwriters at Lisbon

REPORTS from those who attended the Conference of the International Union of Marine Insurance in Lisbon show that, if anything, this conference was the best attended since the change in the restricted methods of extending formal invitations were instituted. This year the organisation of the conference arrangements by the Gremio dos Securadores, the central association of the Portuguese insurance market, was commended by all who attended the proceedings. It is learned that preliminary arrangements have already been made for the next conference to be held in Wiesbaden, Germany, from 16 to 21 September 1962. In his inaugural address Mr Louis Rostock-Jenson, president of the International Union of Marine Insurance, stressed the fact that this was not an organisation of marine insurance tariffs and pointed out that the wide support accorded to these annual conferences by marine underwriters from all over the world was evidence that these opportunities for exchange of views and opinion on matters of common interest were welcomed by all marine insurance markets. In addition, the Union had helped to create an atmosphere of mutual understanding and cooperation between marine insurance markets and had been the source of a great number of personal contacts between those engaged in the various markets. As in previous years the American marine in-

insurance market was fully represented, although by reason of anti-trust legislation, which is a feature of American business law, this delegation is always careful to preserve the strict status of its mandate. Outside the formal proceedings of the conference, of course, these occasions offer an excellent opportunity for personal exchanges of opinion between various marine insurance markets, and the special problems of the British marine insurance markets in relation to the European economic community were undoubtedly discussed. Whether the United Kingdom enters the Common Market or finds herself unable to accept the conditions imposed, private exploratory discussions of the problem as it affects marine insurance underwriters in this international market in London are inevitable.

German-Built Cable Ships

THE TWO cable ships building at present in German shipyards are now both in the fitting out stage. The first to be completed is likely to be the *Neptun*, building by Lubecker Flender-Werke A.G. for Union Kabellegungs- und Schiffahrts-Gesellschaft and due to complete in January. This ship will be a most unusual vessel, as she has been designed for use either as a cable ship or a dry cargo vessel, and will be employed as a bulk carrier when not laying or repairing cables. A vessel of 12,000 dwt with 440,000 cu ft capacity, she has six holds, five of which will be used for cable when necessary. This large capacity will allow the *Neptun* to lay a trans-Atlantic cable of between 3,400 and 3,700 nautical miles in a single operation: a feat which no other cable ship can do. Her propelling machinery is a combined diesel and diesel-electric installation, and she will have a Pleuger bow propeller and a Pleuger active rudder. The second of the two ships is in no way dwarfed by all this, as she will be the largest cable ship in the world. Named *Long Lines*, she is building at Schlieker Werft for the American Telegraph & Telephone Company. She will have a gross tonnage of 11,200 tons, and an overall length of 511ft 6in. American taste in propelling machinery runs to turbines, even in cable ships, and the *Long Lines* will have turbo-electric machinery developing 8,500 shp on two shafts. Despite her size her capacity is apparently much less than the *Neptun*, a figure of 1,800 miles of cable being given. This, however, is telephone cable with submerged repeaters, and so the two figures are not exactly comparable. The most notable feature about the *Long Lines*, apart from her size is the fact that she will be able to lay cable at the high speed of 7 or 8 knots. She is due for completion next spring.

U.K. Timber Imports

EACH YEAR the Timber Trade Federation of the United Kingdom analyses the timber imports of the country according to ports of entry, the different ports being grouped into areas. Three categories of imports are analysed: sawn and planed softwood, expressed in standards and excluding boxboards, sleepers, pitwood, pulpwood and hewn timber; hewn, sawn and planed hardwood, expressed in cubic feet; and plywood, including laminated board and blockboard, expressed in cubic metres. From the shipping point of view the softwood imports are, of course, dominant, and the Federation's analysis for 1960 which has just been issued brings out the surprising fact that only in that year did U.K. imports reach a volume equal to that of 1938—in fact, a few thousand standards short. London's share of the total at 487,000 stds is still well above that of any other port or area, but it has dropped from 31 per cent in 1938 to 27 per cent in 1960. In hardwood imports the London share has gone up from 48 per cent before the war to 50

per cent last year, while the total volume of hardwood imports has risen from 39 mn cu ft to 49 mn. So far as plywood and manufactured board are concerned, imports have more than doubled compared with 1938. The 1960 total is more than 636,000 cu m, equivalent to nearly 22.5 mn cu ft. With 232,000 stds of softwood imports last year, Hull remains the second major timber port with no other near rival; the volume of this trade has increased in each of the last two years, and is now greater than before the war, while the volume of hardwood imports into Hull has gone up by over 1 mn cu ft compared with 1938. Otherwise, apart from the emergence of Shoreham as a timber port of some significance (28,483 stds in 1960) the pattern of trade has remained remarkably stable, both by port and by area. At present there are over 30 U.K. ports handling 10,000 stds of softwood or more a year. With labour cooperation, economies could surely be achieved by some concentration.

Minesweeper Becomes Minehunter

THE MODERN non-contact mine, laid in shallow-water so that it explodes as the ship passes over it, can be made unsweepable for practical purposes by a combination of acoustic, magnetic and pressure techniques. So the minesweeper has to become a minehunter, and must locate each individual mine and destroy it. HMS *Shoulton*, a coastal minesweeper which paid a two-day visit to Greenwich last week, is fitted with the prototype of a new British minehunting asdic set which enables her to locate and classify any mine-like object on the sea bed with an accuracy and at a range previously impossible. During the past 12 months the *Shoulton* has been demonstrating this equipment to the United States and other navies: so far some 250 officers from 14 different navies have seen it at work, and in the first half of this year alone the ship has steamed over 14,500 miles carrying out these demonstrations. The system is believed to be the most effective method of minehunting in existence, and it has also proved invaluable for finding other submerged objects, such as crashed aircraft. In her last aircraft search the *Shoulton* found a crashed helicopter after only four minutes of operation.

Reasonable Deviation

ONE of the benefits conferred on the shipowner by the Hague Rules was that he should not be liable for loss or damage arising out of a reasonable deviation. Over-carriage of goods is generally recognised to be a deviation from the contractual voyage, and some further light has been shed on this matter by a ruling in the United States Courts recently reported. Breach of contract by reason of deviation was alleged by the owners of a package of watch backs that had been shipped in the vessel's special cargo compartment at Hong Kong for delivery at New York. The package could not be found at the port of discharge but was discovered at a subsequent call of the vessel at Beirut and was forwarded by another vessel, the package arriving at New York almost three months after the date when it should have been delivered. A claim for loss in market value was submitted by the cargo owners, liability being denied by the shipowners on the ground that the loss in value arose out of a reasonable deviation. On this defence the Court remarked that it might have been available to the owners if the vessel had gone to a port nearby and returned to New York and delivered the package in a reasonable time, but three months was not a reasonable time. The Court recognised the plea of breach of contract, by reason of the deviation, and, for this reason, also denied the owners of the vessel the right to limit liability within the provisions of the US Carriage of Goods by Sea Act.

ON THE "BALTIC"

PROFITS FOR LIBERTY SHIPS

By BALTRADER

ALTHOUGH bigger and faster tramp ships are the order of the day, the trend of secondhand prices indicates that the Liberty ship, that old war horse, is still far from finished. At least this appears to be the considered opinion of the many owners whose sustained buying interest has pushed up the price of this class of vessel from around £100,000 at the beginning of the year to close on £150,000 today. The pressure is certainly not coming from British owners, most of whom sold their warbuilt steamers years ago and are not interested in buying more tonnage of similar vintage. Greek owners, on the other hand, have always had a soft spot in their hearts for the Liberty and they are probably the keenest buyers at the present time. Many of the vessels changing hands will be trading under flags of convenience such as that of the Lebanon, and with smaller crews and generally lower running costs than British and other nationalities, they have obvious advantages.

Presumably anyone buying a Liberty type vessel at today's prices is hoping for at least 2/3 years' trading at current profits, with a sporting chance that the markets will, for any one of many reasons, improve considerably. If all does not go according to plan the buyer will at least hope for a good break-up price to help cut his losses when the time eventually comes to sell. It is difficult, if not impossible, to generalise even about current profits, but timecharter rates give the best guide. Unfortunately, however, Liberty ships seldom secure time charters these days. Nevertheless it was recently understood that one or two vessels of this type had been fixed for about a year's trading by Russian charterers at 18s, and this is probably a fair estimate of the value of such a vessel with delivery on this side of the world. Based on 10,800 dwt with, say, 5 per cent deducted for commission, the owner would secure a gross income of something over £300 per day. From this must be deducted running costs, which vary enormously depending on the vessel's flag, allowance for repairs, surveys, depreciation and so on. Let us suppose that an owner is calculating on running costs of £200 per day, which is probably erring on the generous side for a flag of convenience. This will give him on a timecharter at 18s per ton per month, with say 20 days off hire during the period, an annual profit of approximately £32,000, say £90 per day for 12 months. Not too bad on an investment of £150,000, but still a gamble when one remembers that it would be difficult to secure more than 12 months employment today at the equivalent of 18s. It must also be realised that, although the rate for a Liberty in a month or two could be 20s or more, it could equally easily be much lower, and as recently as the summer of 1959 a Liberty on timecharter in the East was worth as little as 11s 6d.

Difficulties of the Scrap Trade

One of the most attractive trades for a Liberty today is with scrap from the U.S. Gulf to Japan at \$140,000, and based on an initial voyage out to the loading port in ballast from Europe and allowing for, say, 40 days discharging in Japan and a fairly adequate demurrage rate, a vessel of this type might show a profit, if one again allows £200 per day running costs, of about £130 per day for some 117 days. But this is an unrealistic figure, for the ship must then water down her profits considerably getting out of the Far East. She might ballast back from Japan to the Gulf for a return cargo and if, for

example, it was possible to fix for three such cargoes at \$140,000 each and occupy rather more than a year (in this estimate 389 days) a Liberty vessel could earn about £25,000 in a year, or a daily profit of just over £70. This is again based on £200 per day running costs, a first run out to the U.S. Gulf from Europe in ballast and concluding the third voyage in Japan. The weakness of this particular exercise is that it presupposes a 40-days discharge in Japan, which after the first voyage could prove wide of the mark by a couple of weeks or more, and it is also based on the assumption that the scrap rate will remain steady, an unlikely phenomenon over 12 months. Nevertheless, it does suggest that steady profits of £70 to £90 per day are not out of reach for Liberty-type vessels on current markets.

The Freight Markets

It was a little quieter on the markets last week but the general level of rates showed no real change. In the trans-Atlantic trades the most striking fixture was that of the tanker *Silverspring*, a vessel of 30,000-tons capacity, for eight consecutive grain voyages from the U.S. Gulf to Antwerp, Rotterdam or Amsterdam at \$4 f.i.o., commencing next February. A Headlam vessel was fixed with heavy grain from the U.S. Gulf to Manchester at 65s, November 6/18, and the *Panaghia Theoskeptasti* was fixed with a similar cargo from the same loading area to Japan at \$11.50 free discharge, Nov. 25/Dec. 20.

Scrap charterers paid unchanged rates to Japan and fixtures included a Livanos vessel, 9,500 dwt for cargo, 475,000 cu ft bale, from the U.S. North of Hatteras at \$140,000 f.i.o., October 18/30. In the Hampton Roads coal trades there was little to report but fixtures included a Saguenay vessel to Japan at \$9.40 free discharge, six days shinc, November 10/30. The River Plate market was as quiet as ever but the 6,200-tons *Belevlyn*, 67ft guaranteed, was fixed to Antwerp/Hamburg range at 81s, option U.K. at 86s, November/December loading.

From Australia, a vessel was fixed with bulk sugar from Queensland to the U.K. at 90s, option Antwerp, Rotterdam or Amsterdam at 87s 6d, November 27/December 29, and several fixtures were reported for coal to Japan including *Silverpoint* from Newcastle, N.S.W., at 41s 6d f.i.o. and trimmed, November 25/December 20. Grain fixtures included a 15,000-tons tanker with bulk wheat from Geelong to Italy at 60s free discharge, January 1/February 15. On the North Pacific market the *Afros*, 10,000 dwt, 499,000 cu ft bale, was fixed with lumber and general cargo from British Columbia to the U.K. at \$12.20 f.i.o., December 1/31, and the *Bjorgheim* takes wheat from the North Pacific to two ports Japan at \$7 free discharge, December 1/20. The *Dahlia* was fixed with wheat from British Columbia to Emden/Hamburg range at \$8.25 gross discharge, November 5/20. Other North Pacific fixtures included *Sariza*, 9,500 dwt, 475,000 cu ft bale, with scrap from Portland, Oregon, to Japan at \$80,000 f.i.o., November 10/30.

Timecharter fixtures included *Ruysdael* (ms), 10,600 dwt, 580,000 cu ft bale, 13 knots on 17 tons fuel oil, plus 1 ton diesel oil, for a West Indies round voyage at 23s 3d. per ton, delivery Hull, redelivery U.K./Continent, October 16/23, and *Queen City* (ms), 8,820 dwt, 495,960 cu ft bale, 12½ knots on 10½ tons fuel plus ¾ tons diesel oil, 26s 6d per ton, delivery Antwerp, redelivery Persian Gulf, trip via Suez, November 13/17.

Analysis of British Tonnage

UNITED KINGDOM MERCHANT SHIPS IN PRIVATE OWNERSHIP

THE accompanying tables provide a detailed statistical analysis of the merchant ships of 500 grt and over in private ownership on the United Kingdom and Colonial registers. The tables break down the fleet into its main constituent parts and further subdivide some of the groups into age and size categories. Full details of the definitions according to which these tables have been compiled were given in THE SHIPPING WORLD of 1 February 1961. They exclude Canadian-owned tonnage permanently transferred to U.K. registry, which at 31 July 1961 amounted to 234,000 grt.

The merchant fleet covered by these statistics on 1 October 1961 totalled 21,040,971 grt, an increase of 186,807 grt in the third quarter and of 569,641 grt in the first nine months of the year. The total has passed beyond 21 mn tons for the first time, and the total tanker fleet has also passed beyond 7 mn grt for the first time.

The ocean-going liner fleet decreased by 33,563 grt in the third quarter and by 103,137 grt since the beginning of the year. New vessels commissioned during the last quarter totalled 75,894 grt, the figure for the first nine

months being 275,246 grt. War-built and prewar liner tonnage declined by 75,339 grt in the third quarter. There was a fall of 34,299 grt in vessels of 10,000/14,999 grt, and of 7,760 grt in vessels of 3,000/5,999 grt; but the tonnage of vessels between 6,000 and 9,999 grt increased by 8,496 grt.

Ocean-going tramp tonnage continued to increase, and passed beyond 4 mn grt for the first time. The last quarter's increase was 122,677 grt, bringing the increase since the beginning of the year to 292,263 grt. New tonnage in the last quarter came to 56,118 grt, bringing the year's total to 182,642 grt. In addition 24,553 grt built in 1960 came into the statistics. There was very little tonnage disposed of; in fact there was an increase of 44,769 grt in vessels built during the war or earlier. The trend towards larger ships continued, ships of 7,000 grt and over having increased by 134,543 grt during the last quarter. Vessels of 6,000/6,999 grt declined by 23,930 grt.

There was a net increase of 85,124 grt during the third quarter in ocean-going tanker tonnage, bringing the net

TABLE I
BRITISH MERCHANT SHIPS IN PRIVATE OWNERSHIP*

| | 1 Jan. 1960 grt | 1 Jan. 1961 grt | 1 July 1961 grt | 1 Oct. 1961 grt |
|---------------------------|--------------------|--------------------|--------------------|--------------------|
| Non-tankers: | | | | |
| Ocean-going liners ... | 8,557,646 | 8,608,512 | 8,538,938 | 8,505,375 |
| Ocean-going tramps ... | 3,314,576 | 3,828,899 | 3,998,485 | 4,121,162 |
| Short-sea and coastal ... | 1,448,390 | 1,447,661 | 1,395,592 | 1,406,425 |
| | 13,332,612 | 13,885,072 | 13,933,015 | 14,032,962 |
| Tankers ... | 6,477,765 | 6,588,250 | 6,921,149 | 7,008,909 |
| Total ... | 19,810,377 | 20,473,330 | 20,854,164 | 21,040,971 |

* Vessels of 500 grt and over in private ownership and on the United Kingdom or Colonial register, according to records available and information received by THE SHIPPING WORLD up to dates specified. Tonnage managed by shipowners on behalf of the Ministry of Transport, or managed on behalf of Canadian owners (but registered in the U.K.), is not included.

TABLE II
AGE OF OCEAN-GOING LINERS AND TRAMPS*

| LINERS | | TRAMPS | |
|--------------------|--------------------|--------------------|--------------------|
| 1 Oct. 1961 grt | 1 July 1961 grt | 1 July 1961 grt | 1 Oct. 1961 grt |
| 1,428,111 | 1,469,256 | 495,262 | 510,463 |
| 193,963 | 208,343 | 163,525 | 177,905 |
| 212,867 | 223,232 | 194,3 | 337,614 |
| 441,980 | 440,945 | 1944 | 235,457 |
| 306,608 | 315,022 | 1945 | 172,754 |
| 412,706 | 412,706 | 1946 | 69,377 |
| 442,012 | 462,263 | 1947 | 45,407 |
| 544,766 | 544,766 | 1948 | 23,131 |
| 500,802 | 500,802 | 1949 | 49,841 |
| 468,419 | 468,516 | 1950 | 68,228 |
| 308,912 | 308,912 | 1951 | 30,193 |
| 343,439 | 343,439 | 1952 | 84,475 |
| 173,802 | 173,802 | 1953 | 132,847 |
| 343,132 | 351,295 | 1954 | 118,522 |
| 305,344 | 305,344 | 1955 | 123,470 |
| 368,341 | 376,040 | 1956 | 214,612 |
| 396,847 | 396,847 | 1957 | 310,685 |
| 316,162 | 316,162 | 1958 | 456,885 |
| 320,993 | 320,993 | 1959 | 341,291 |
| 400,923 | 320,993 | 1960 | 398,385 |
| 275,246 | 199,352 | 1961 | 126,524 |
| 8,505,375 | 8,538,938 | 3,998,485 | 4,121,162 |

* Excluding cross-Channel passenger ships and coastal colliers of 3,000 grt and over, which are included in Tables III and V.

TABLE III
LINER TONNAGE BY SIZE
Dry cargo vessels of 500 grt and over*

| Size | 1 Jan. 1960 grt | 1 Jan. 1961 grt | 1 July 1961 grt | 1 Oct. 1961 grt |
|-------------------------|--------------------|--------------------|--------------------|--------------------|
| Ocean-going: | | | | |
| 30,000 grt and over ... | 234,748 | 314,311 | 314,311 | 314,311 |
| 20/29,999 grt ... | 943,391 | 916,015 | 920,738 | 920,738 |
| 15/19,999 grt ... | 252,697 | 252,662 | 252,657 | 252,657 |
| 10/14,999 grt ... | 1,396,433 | 1,393,335 | 1,460,518 | 1,426,219 |
| 6/9,999 grt ... | 4,751,820 | 4,747,892 | 4,635,944 | 4,644,440 |
| 3/5,999 grt ... | 978,557 | 984,297 | 954,770 | 947,010 |
| Total ocean-going ... | 8,557,646 | 8,608,512 | 8,538,938 | 8,505,375 |
| Coastal, etc. ... | 588,149 | 581,254 | 583,587 | 588,595 |
| Total ... | 9,142,795 | 9,189,766 | 9,122,525 | 9,093,970 |

* This table does not include colliers as shown separately in Table V, or tankers.

TABLE IV
TRAMP TONNAGE BY SIZE
Dry cargo vessels of 500 grt and over*

| | 1 Jan. 1960 grt | 1 Jan. 1961 grt | 1 July 1961 grt | 1 Oct. 1961 grt |
|--------------------------|--------------------|--------------------|--------------------|--------------------|
| Ocean-going: | | | | |
| 7,000 grt and over ... | 1,768,813 | 2,232,630 | 2,382,194 | 2,516,737 |
| 6/6,999 grt ... | 590,624 | 623,718 | 637,259 | 613,329 |
| 5/5,999 grt ... | 696,346 | 679,352 | 653,551 | 664,578 |
| 4/4,999 grt ... | 175,357 | 198,150 | 213,000 | 217,886 |
| 3/3,999 grt ... | 83,436 | 95,049 | 112,481 | 108,632 |
| Total ocean-going ... | 3,314,576 | 3,828,899 | 3,998,485 | 4,121,162 |
| * Coastal, etc.: | | | | |
| 1,500/2,999 grt ... | 147,341 | 130,830 | 112,396 | 112,396 |
| 500/1,499 grt ... | 221,663 | 226,470 | 200,619 | 200,401 |
| Total U.K. ... | 3,683,580 | 4,186,199 | 4,311,500 | 4,433,959 |
| On Colonial register ... | 208,313 | 222,669 | 226,043 | 232,086 |
| Total ... | 3,891,893 | 4,408,868 | 4,537,543 | 4,666,045 |

* Excluding colliers as shown in Table V.

TABLE V
COASTAL AND SHORT-SEA TRADERS
Ships of 500 to 2,999 grt*

| | 1 Jan. 1960 grt | 1 Jan. 1961 grt | 1 July 1961 grt | 1 Oct. 1961 grt |
|--------------------------------------|--------------------|--------------------|--------------------|--------------------|
| Liners, short-sea ... | 208,990 | 205,289 | 207,535 | 210,485 |
| .. coastal ... | 181,593 | 178,600 | 179,223 | 177,729 |
| .. passenger ... | 194,566 | 197,365 | 196,829 | 200,381 |
| Tramps, short-sea ... | 585,149 | 581,254 | 583,587 | 588,595 |
| .. U.K. coastal ... | 147,341 | 130,830 | 112,396 | 112,396 |
| Colliers ... | 221,663 | 226,470 | 200,619 | 200,401 |
| | 297,924 | 286,438 | 272,947 | 272,947 |
| On Colonial register (dry cargo) ... | 1,252,077 | 1,224,992 | 1,169,549 | 1,174,339 |
| | 208,313 | 222,669 | 226,043 | 232,086 |
| Tankers ... | 1,460,390 | 1,447,661 | 1,395,592 | 1,406,425 |
| | 139,602 | 140,624 | 144,776 | 146,513 |
| Total ... | 1,599,992 | 1,588,285 | 1,540,360 | 1,552,938 |

* Cross-Channel passenger ships and coastal colliers of over 3,000 grt are included in this table.

TABLE VI
TANKER TONNAGE BY SIZE
Ships of 500 grt and over*

| | 1 Jan. 1960 grt | 1 Jan. 1961 grt | 1 July 1961 grt | 1 Oct. 1961 grt |
|---------------------------|--------------------|--------------------|--------------------|--------------------|
| Ocean-going: | | | | |
| 30,000 grt and over ... | — | 158,414 | 411,939 | 485,663 |
| 18/29,999 grt ... | 1,709,979 | 1,915,002 | 2,121,779 | 2,189,588 |
| 12/17,999 grt ... | 1,583,467 | 1,750,827 | 1,797,536 | 1,866,848 |
| 10/11,999 grt ... | 1,555,070 | 1,386,387 | 1,354,022 | 1,365,154 |
| 8/9,999 grt ... | 1,080,143 | 836,446 | 745,038 | 608,384 |
| 6/7,999 grt ... | 277,046 | 242,526 | 185,656 | 185,656 |
| 3/5,999 grt ... | 87,373 | 128,250 | 130,421 | 130,421 |
| Total ocean-going ... | 6,293,078 | 6,417,852 | 6,746,591 | 6,831,714 |
| Coastal, etc.: | | | | |
| 500/2,999 grt ... | 139,602 | 140,624 | 144,776 | 146,513 |
| Whaling factory ships ... | 6,432,680 | 6,558,476 | 6,891,367 | 6,978,227 |
| | 45,085 | 29,782 | 29,782 | 29,782 |
| Total ... | 6,477,765 | 6,588,250 | 6,921,149 | 7,008,909 |

* This table does not include tankers used as store ships, and excludes Royal Fleet Auxiliary tankers.

TABLE VII
OCEAN-GOING TANKER TONNAGE IN AGE-GROUPS
Ships of 3,000 grt and over*

| Year of Build | 1 Jan. 1960 grt | 1 Jan. 1961 grt | 1 July 1961 grt | 1 Oct. 1961 grt |
|------------------|--------------------|--------------------|--------------------|--------------------|
| 1941 and earlier | 318,411 | 240,332 | 193,889 | 193,889 |
| 1942 | 88,485 | 44,102 | 34,313 | 34,313 |
| 1943 | 136,155 | 98,941 | 86,803 | 86,803 |
| 1944 | 309,234 | 150,610 | 149,362 | 165,941 |
| 1945 | 379,956 | 207,148 | 166,210 | 149,410 |
| 1946 | 183,993 | 166,432 | 165,424 | 79,918 |
| 1947 | 67,897 | 66,137 | 59,699 | 25,351 |
| 1948 | 129,938 | 123,410 | 117,291 | 117,291 |
| 1949 | 279,025 | 248,030 | 193,211 | 193,211 |
| 1950 | 275,607 | 269,131 | 248,630 | 248,630 |
| 1951 | 260,133 | 260,133 | 253,990 | 253,990 |
| 1952 | 399,280 | 411,801 | 401,155 | 401,155 |
| 1953 | 461,593 | 477,986 | 465,408 | 477,747 |
| 1954 | 494,729 | 515,445 | 536,848 | 549,396 |
| 1955 | 367,680 | 356,969 | 356,969 | 356,969 |
| 1956 | 235,278 | 235,278 | 247,999 | 247,994 |
| 1957 | 483,988 | 475,391 | 475,391 | 475,391 |
| 1958 | 615,966 | 635,303 | 635,303 | 635,303 |
| 1959 | 835,730 | 848,691 | 889,953 | 889,953 |
| 1960 | — | 586,312 | 618,079 | 618,079 |
| 1961 | — | — | 450,664 | 630,980 |
| Total | 6,293,078 | 6,417,852 | 6,746,591 | 6,831,714 |

* This table excludes whaling factory ships, coastal tankers, tankers used as store ships, and Royal Fleet Auxiliary tankers.

increase since the beginning of the year to 413,862 grt. This is after taking into account the scrapping or disposal of 136,654 grt during the last quarter, all vessels of about 9,000 grt built in 1945-47. New vessels commissioned in the third quarter totalled 180,316 grt, bringing the figure for the first nine months to 630,980 grt. New tanker tonnage consisted mainly of large ships. Tankers of 30,000 grt delivered in the third quarter totalled 73,724 grt, bringing the grand total in this size category to 485,663 grt. New tankers of 18,000/29,999 grt totalled 67,609 grt in the third quarter, and tankers of 12,000/17,999 grt totalled 69,312 grt.

Coastal and short-sea tonnage showed an increase of 12,570 grt in the third quarter, reversing the recent declining trend. Tonnage on Colonial register accounted for 6,043 grt of this increase, and cross-Channel passenger ships for 3,552 grt. Coastal tanker tonnage again increased, by 1,737 grt during the third quarter.

AFTER long negotiations between representatives of the Greek Shipowners' Association and the Pan-hellenic Seamen's Federation, a new collective agreement affecting the wages and conditions of work of seamen aboard Greek oceangoing cargo vessels of over 4,500 dwt has been signed. After receiving the approval of the Minister of Mercantile Marine, the new agreement went into retroactive effect as from 1 July 1961. The new agreement replaces the one in force since 1 May 1959. It provides an increase of £4 and £3 per month for officers and ratings respectively.

RECENT PUBLICATIONS

Two leaflets have been received from the Cambridge Instrument Co Ltd, 13 Grosvenor Place, London SW1. List No 325 describes the company's standard range of rare and base-metal thermocouples for temperatures up to 1,500 deg C. List No 281/2 gives details of magnetic oxygen meters.

New and recently revised catalogues received from Clarke, Chapman & Co Ltd, Victoria Works, Gateshead 8, Co. Durham, give details of electrical drives for windlasses and capstans, self-holding and automatically releasing roller and plain bow stoppers, electrically-driven and steam-driven anchor windlasses, and warping and mooring capstans.

A BROCHURE issued by the Brooke Tool Manufacturing Co Ltd, Warwick Road, Birmingham, gives details of their range of pumps. Output charts are given from which the most efficient running speed of a particular pump may be deduced.

DETAILS of a range of plate levelling machines are given in a folder received from Head, Wrightson & Co Ltd, Ship House, 20 Buckingham Gate, London SW1. For operation in shipyards a wide range of levellers is available to handle plates of ¼-in, 1-in, 1½-in and 2-in maximum thickness.

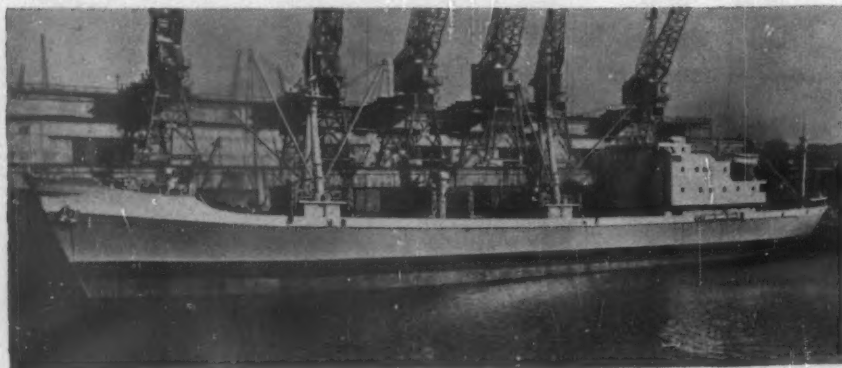
PARKINSON COWAN LTD, Terminal House, Grosvenor Gardens, London SW1, have issued a brochure which deals mainly with the Rotoplunge pump. These are available in sizes up to 2,300 galls/hour capacity, and are suitable for a wide range of duties.

A NEW BROCHURE prepared by Sharples Centrifuges Ltd, Tower Works, Doman Road, Camberley, Surrey, describes the full range of their Super-Centrifuges. These are used on board ship for the purification of diesel fuel oil, heavy fuel oil, and diesel and turbine lubricating oil.

JOHN S. CRAIG & Co LTD has published a revised edition of the "Manual of Marine Paints", an authoritative reference book on ships' painting systems. First published in 1959, the 52-page manual is comprehensive in scope. Of interest is the chapter on the treatment of shot-blasted steel, a development in which the Craig company has specialised. Copies of the manual are available to companies on request to the firm at 12-40 Bogmoor Road, Glasgow SW1.

A NEW PAMPHLET published by Associated Electrical Industries Ltd, entitled *Radar and Coastal Navigation in Poor Visibility*, deals both with the general subject implied by its title and also with the use of the firm's Escort radar with its Chart-Plan (true motion) presentation. The relative importance of the meeting on reciprocal or near-reciprocal courses in confined waters, where wide freedom of manoeuvre is often not possible, is shown by figures obtained during a recent passage of a ship between London and Ushant. These show that of the 166 vessels detected by the ship's radar, 12 were overtaking vessels, 25 crossing vessels, and 129 were vessels steering reciprocal or near-reciprocal courses. Copies of the pamphlet are obtainable on request from Associated Electrical Industries Ltd, Electronic Apparatus Division, Radar Sales Department, Blackbird Road, Leicester.

CHARTERED TONNAGE FOR CUNARD



The motorship "Nordica," 6,000 dwt, is the first of a pair of new cargo vessels chartered by the Cunard Line to replace their liners "Media" and "Parthia" which have been sold to other owners. The "Nordica" was originally named "Nordic" and is owned by Mr F. H. Andersson, of Stockholm. She was built by A/B Lindholms Varv. The second vessel "Marion," to be renamed "Maronia," is of 5,900 dwt and is expected to make her maiden voyage in the middle of November. She is owned by Mr Ake Hogberg, of Stockholm, and was built by A/B Finnboða Varf.

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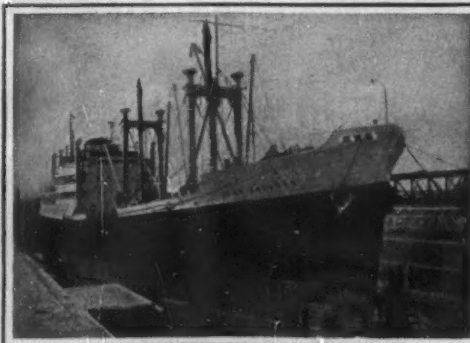
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New British & Burmese Cargo Liner

"PEGU" COMPLETED BY LITHGOWS

A CARGO liner of 9,300 dwt has been built by Lithgows Ltd, for the British & Burmese Steam Navigation Co Ltd. This vessel, the *Pegu*, is the seventeenth vessel to be built by Lithgows since the last war for these owners. Initially she will trade to West Africa, and on her maiden voyage she carried a general cargo from Liverpool to Lagos, Takoradi, Cape Coast, Winneba, Accra, Apapa, Burutu, Warri, and Sapele. After a period of trading to West Africa the ship will enter the company's service to Burma.

The owners of the *Pegu* are associated with the Henderson Line, and also the Elder Dempster Line, on whose berth in West Africa she first started trading. The ship is diesel powered and has a service speed of 12 knots.

The *Pegu* is an open shelterdeck-type vessel with two complete decks, upper and second. The latter has no sheer forward. The hull is mainly of welded construction with riveted transverse framing, except at the forward and after ends. Scantlings are based on a draught 1ft 6in in excess of the summer draught of 25ft 8¾in. There are five cargo holds, one of which, No 3, is used as a deep tank for the carriage of vegetable oils or 1,620 tons of water ballast. The hatchways on the upper deck have Mepco steel type covers, while those on the second deck are of the conventional wood type.

No 1 hold is served by one 3-tons and two 10-tons derricks; No 2 hold by two 15-tons and one 50-tons derricks. There are two 6-tons derricks serving either

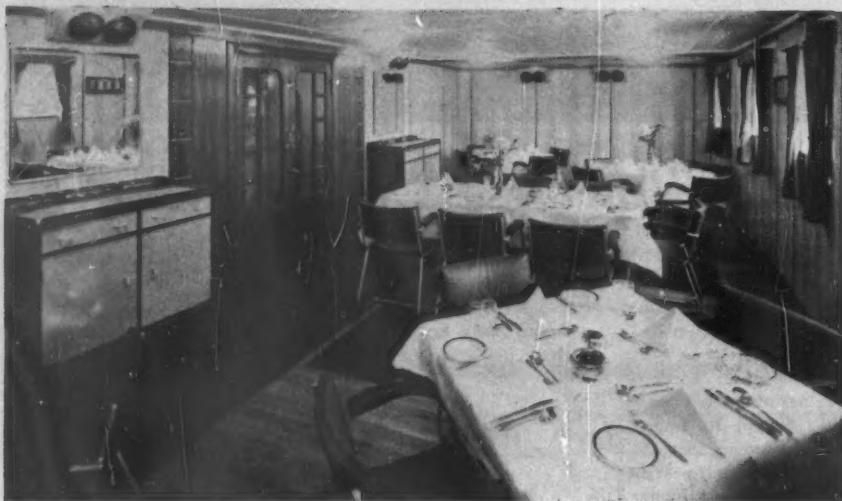
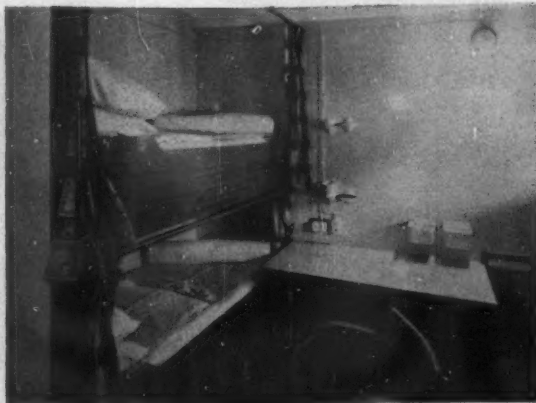
No 2 or No 3 hold, and two 3-tons derricks serving No 3 hold. No 4 hold is served by two 6-tons and two 15-tons derricks; and No 5 hold by one 3-tons and two 6-tons

PRINCIPAL PARTICULARS

| | |
|-----------------------------------|---------------|
| Length o.a. | 465ft 10in |
| Length b.p. | 437ft 10in |
| Breadth moulded | 59ft 9in |
| Depth moulded to upper deck | 37ft 11in |
| Depth moulded to second deck | 25ft 11in |
| Loaded draught, summer | 25ft 8¾in |
| Deadweight | 9,300 tons |
| Machinery output | 5,250 bhp |
| Service speed | 14 knots |
| Cargo capacity (incl. deep tanks) | |
| grain | 589,843 cu ft |
| bale | 545,348 cu ft |



The officers' smokeroom



ACCOMMODATION IN THE "PEGU"

TOP LEFT: A four-berth crew
cabin in the poop

TOP RIGHT: A two-berth appren-
tices' cabin

LEFT: The dining saloon

derricks. Laurence, Scott & Electromotors Ltd have supplied the twelve winches, eight being of 3-tons capacity and four of 5-tons capacity. Two heavy-duty winches have also been supplied.

The propelling machinery in the *Pegu* comprises a four-cylinder turbocharged single-acting two-stroke opposed-piston crosshead diesel engine of the latest Kincaid-Harland-B & W design. The cylinder bore is 750mm and the combined piston stroke 2,000mm. At a speed of 108 rpm and with an mip of about 103 lb/sq in, the engine develops 5,250 bhp in normal service. The machinery installation is by John G. Kincaid & Co Ltd, Greenock.

Electricity for power and lighting is supplied by four Laurence, Scott DC generators of 165 kW output at 220 volts. These generators are directly coupled to Ruston 4 VEBZ four-cylinder diesel engines running at 200 rpm. The dead-front switchboard and the main electrical equipment have been supplied by W. Muir Goodfellow & Co Ltd. Steam is generated in a Cochran composite boiler having a diameter of 7ft and a height of 19ft, designed for a working pressure of 100 lb/sq in. This boiler can produce about 1,740 lb of steam per hour from exhaust gas firing, and about 1,800 lb/hour when oil fired. The oil burning equipment is of the Wallsend low-pressure gravity feed type.

Auxiliary equipment includes Serck lubricating oil and fresh water coolers, Titan heavy fuel oil purifiers, Sharples lubricating and diesel oil purifiers, a Turbulo oily water

separator and Weir type reciprocating boiler feed pumps. The fuel oil transfer pumps are of the Mono type and the majority of the remaining pumps are Worthington-Simpson electrically-driven units, Hamworthy two-stage air compressors provide the air for starting the main and auxiliary diesel engines.

THE Servicio Técnico-Comercial de Constructores Navales has reported that on August 31, 59 vessels with a gross tonnage of 218,398 tons were being built or awaiting delivery in Spanish shipyards for foreign countries. Conversions were also being carried out on six other vessels, and the total value of the work in hand was more than U.S.\$82 mn.

T. W. GREENWELL & Co LTD, Sunderland shiprepairers, have completed a scheme for converting North Dock, Sunderland, into a new repair berth 850ft long. The constructional work was completed last year, and during the past few months the River Wear Commissioners have been carrying out dredging work to provide a depth of 23ft at low water.

THE estuarial tanker *Humber Industry*, 480 dwt, has been launched by the Yorkshire Dry Dock Co Ltd. It is being built to the order of John H. Whitaker (Tankers) Ltd for service in the Humber ports bunkering service.

IN HONG KONG, 18 vessels of 123,003 grt were broken up for scrap in the second quarter of this year. Another 25 vessels of 180,693 grt were in the process of being broken up at the end of the quarter. Fifteen vessels of 24,261 grt were laid up in the waters of the Colony on June 30. This was an increase of four vessels over the figure for the previous quarter.

The Development of Shell Plates

THE G.A.G. PLATE DEVELOPMENT JIG

TO ELIMINATE the lengthy manual processes now used in shipyards for the development of shell plates and other similarly shaped structural elements used in ship construction, a new apparatus has been developed by the German firm Gesellschaft für Anzeichen Geräte, Hamburg. This equipment, known as the G.A.G. plate development jig, is already in use in shipyards in Sweden, Norway, Denmark, France and Germany. It is being marketed in Great Britain by Cole Wardlaw & Co Ltd, 39 New Broad Street, London EC2.

In every shipyard there have to be a few skilled specialists who are able correctly to expand or develop shell plates. The time required for the development process may be as much as three to four hours, and depends to some extent upon the skill and experience of the loftsmen. In addition, a large portion of the mould loft area is used and material costs for template, wood etc, cannot be ignored. With 1/10th scale lofting and optical marking, material costs and space requirements are reduced to a minimum, but there has been little reduction in the time required for plate development.

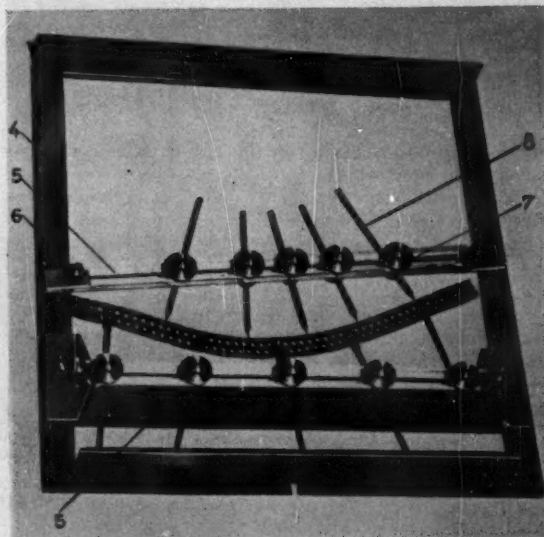
The new G.A.G. plate development jig enables semi-skilled personnel to carry out plate development work and the average time per plate is about three quarters of an hour. Heavily deformed plates have to be developed separately in the apparatus, but slightly formed and adjacent plates can be developed as a pair in one process. With the G.A.G. development jig, it is immaterial whether the plates are shaped in two or three dimensions. It is not only useful for developing shell plates, but also for many other parts of the ship, such as streamlined superstructures, inner bottoms which run parallel to the ship's lines etc.

The jig consists of three main parts: an outer box, the contour frames and a guide frame. The outer U-shaped box, 1,650mm long, 620mm wide and 620mm high, consists of two cast aluminium end pieces (1) which are held in place by nine rigid tubes (2). The sliding attachments on the tubes (3) have slots for inserting the contour frames and are adjusted to the position of the ship's frames on 1/10th scale by means of a special scale which is supplied with the apparatus.

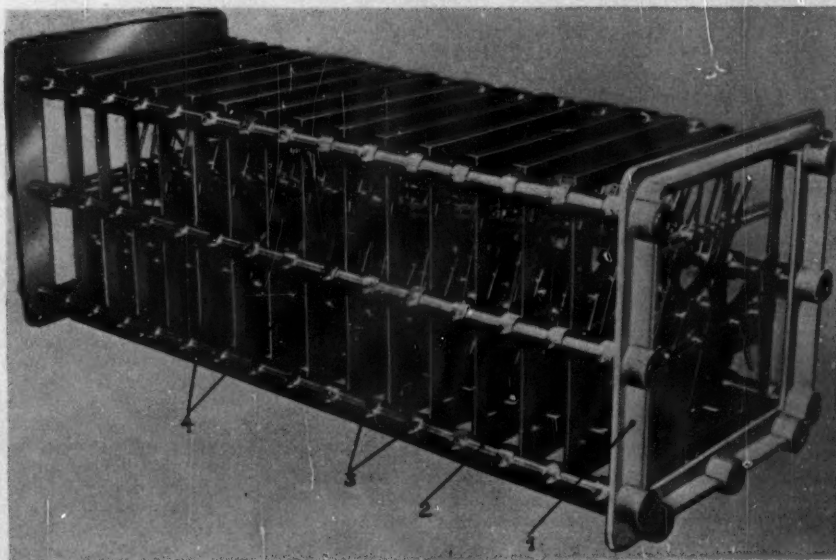
One contour frame (4) is required for each ship's frame covered by the plate to be developed. These contour frames are connected by two attachments (5), which can be moved up and down and secured in any desired position by the locking screws (6). Thin steel rods (8) are inserted into the blocks of the five binding screws (7), secured to the attachment (5). These rods can be moved upwards, downwards and sideways in the plane of the contour frame. The steel rods in the upper attachment (5) are pointed, while those in the lower attachment are secured to the flexible plastic curve. This last is adjusted to the curve of the frame on

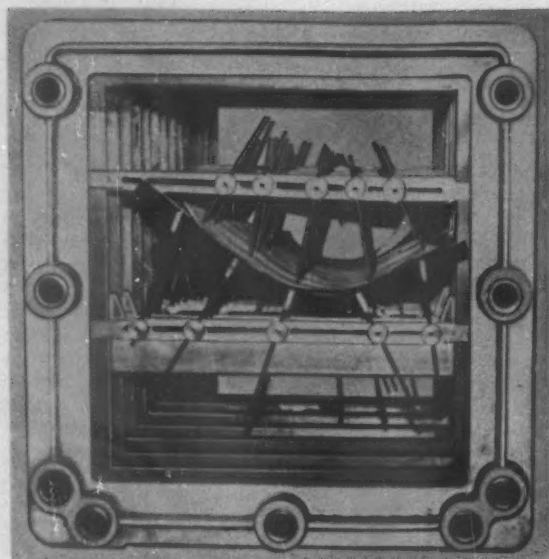
the 1/10th scale body plan, and is then locked in this position.

The upper steel rods are set to the contour of the flexible curve, and are set to the points of intersection of plates on the body plan. The width of the plates relative to the frame is thus fixed and the upper steel rods locked in position. The contour frames are then inserted in the attachments (3) in positions corresponding to the 1/10th scale longitudinal position of the frames in the ship. The three dimensions of the plate are thus established, and the jig simply produces a high precision 1/10th scale model of the piece of ship covered by the plate. One guide frame is necessary to maintain the base line for the adjustment of the various contour frames.



A contour frame (above) and the complete unit (below)





A piece of paper in position in the jig

The guide frame is placed on the 1/10th scale body plan and secured in position.

The contour frame for the first ship frame is placed in the guide and the flexible curve adjusted and locked so that it and the upper steel rods follow the ship's frame. The contour frame is then placed in slot 1 in the outer box. The same procedure is followed for the next frame, and so on. After all the necessary contour frames have been placed in the slots in the outer box, the attachments (5) carrying the flexible curve are lowered by loosening the securing nuts. A sheet of drawing paper about the size of the plate to be developed is pushed in between the upper steel rods and the lower flexible curves. The lower attachments with the flexible curves are now moved upwards so that the paper is fixed between the flexible curves and the steel rods. The points of the steel rods mark a spot on the paper by passing an electric current from the rods to the flexible curve, and the electric spark burns a small hole in the paper. The attachments with the flexible curves are lowered and the drawing paper removed and placed on a drawing board.

Drawing Photographed

The frame contours, widths and lengths are marked by small spots and the outline of the plate is established by drawing a fair line through these points. The drawing is then photographed and the plate marked by the normal optical marking process. The negative may also be used in a G.A.G. projector table to control a 1/10th scale fully automatic gas cutting machine, such as the Messer Sicomat or Telerex.

The process is very accurate as the contour frames are accurately placed by means of the special scale. The jig also gives the contours of the plates, stringers and deck in the fore and aft plane of the ship. If three dimensional plates are developed, the edges of the paper will crinkle, but if the crinkles are cut one side will ride over the other, and the extent of this is marked in pencil. When the drawing paper is placed on the drawing board it is possible to determine the amount of contraction. Check spots can be marked on the plate itself to show how much the plate has to be contracted. A similar procedure is used for possible plate expansion in the middle of the plate. As the flexible curve can be

formed to a radius of 75mm, the jig can be used for the plates for streamlined funnels.

It has been established that the jig pays for itself during the building of one medium-sized ship.

Time Required

The following figures of times taken with the jig were achieved in a shipyard shortly after the apparatus was delivered, and are likely to be improved upon as the operators become more experienced.

| | | | |
|--|-----|-----|------------------|
| (1) Plate F—stroke, frame 14-25 | | | |
| Setting of 12 frames | ... | ... | 34 min. 25 secs. |
| Putting in paper and dotting | ... | ... | 14 " 12 " |
| Total | ... | ... | 48 min. 37 secs. |
| (2) Plate G—stroke, frame 112-121 (trough plate) | | | |
| Setting of 10 frames | ... | ... | 30 min. 14 secs. |
| Putting in paper and dotting | ... | ... | 12 " 22 " |
| Total | ... | ... | 42 min. 36 secs. |
| (3) Plate A—stroke, frame 150-167 | | | |
| Plate B—stroke, frame 150-162 | | | |
| Setting of 15 frames | ... | ... | 40 min. 20 secs. |
| Putting in paper and dotting (twice) | ... | ... | 20 " 00 secs. |
| Total | ... | ... | 60 min. 20 secs. |

Average time per plate: 38 minutes

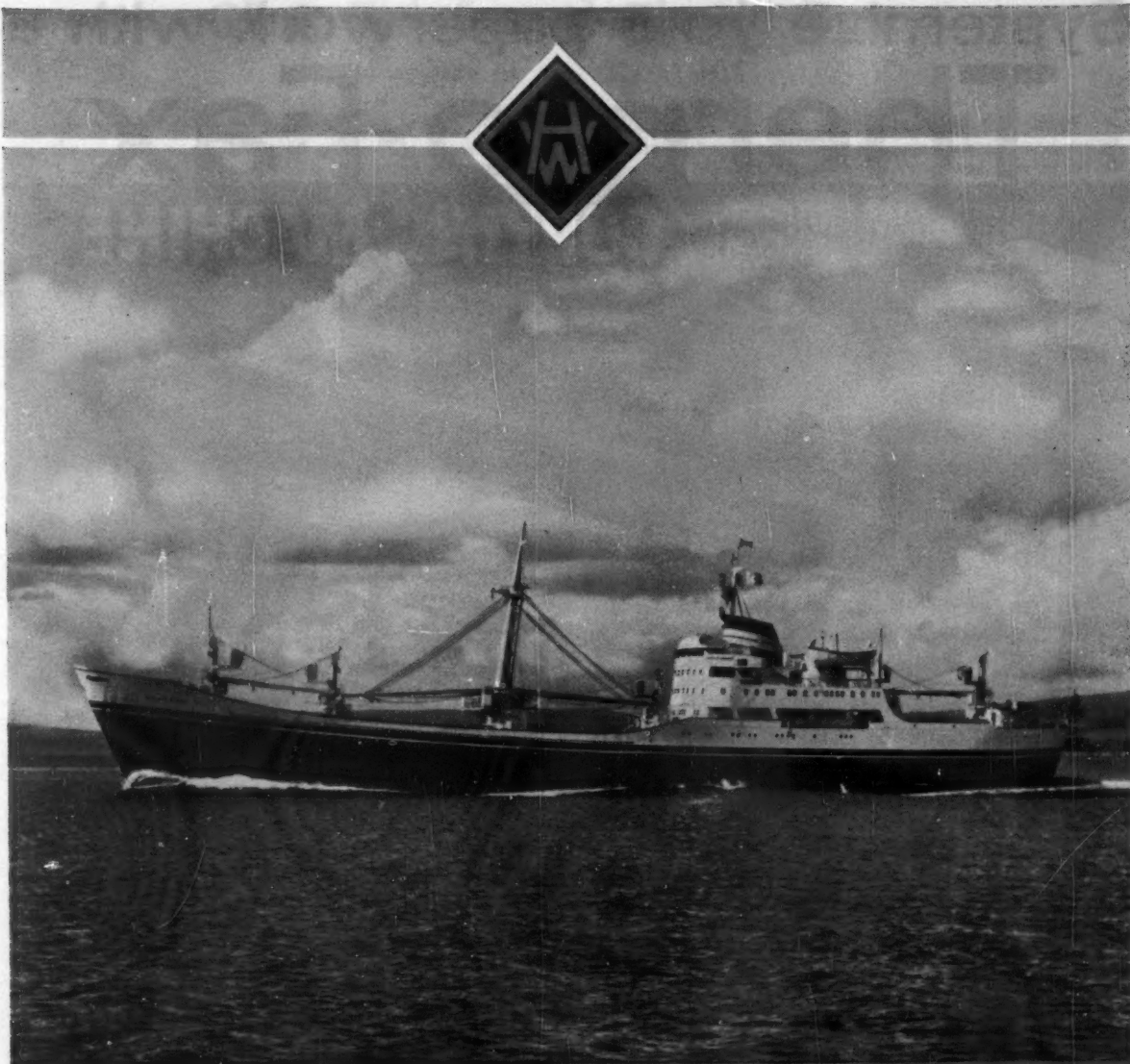
It should be noted that plates lying side by side can be set in one operation, provided the total width does not exceed 4.6 metres. If the frame curves of two plates are parallel, both plates can be marked on one piece of paper in one operation. If the frame curves of the two plates are not parallel, setting both plates can be performed in one operation but each plate must be marked separately (item 3).

BOMBAY SHIPPING CONFERENCE

A shipping conference will be held in Bombay in December. The "Shipping and Shipbuilding Conference (1961)" will be under the joint sponsorship of the Institution of Marine Technologists, the Company of Master Mariners of India and the Institute of Marine Engineers (Bombay Section). The conference will consist of two sessions a day for a period of three to four days. Each session will be devoted to one of the four following groups: (a) Naval Architecture, Ship Design, Ship Construction, Shipyard Practice etc; (b) Marine Engineering, Various Forms of Propulsion, Main and Auxiliary Machinery etc; (c) Navigation, Seamanship, Cargo Stowage, Cargo Handling, Port Operations etc, and (d) Marine Insurance, Shipping Law, Merchant Shipping Acts, Ship Economics and Fleet Management. Organisations interested in participating in the conference may obtain further information from T. M. Sanghavi, Convener, Shipping and Shipbuilding Conference (1961), c/o The Great Eastern Shipping Co Ltd, Mercantile Bank Building, 60 Mahatma Gandhi Road, Bombay 1.

INTERNATIONAL SHIP STRUCTURES CONGRESS

PROCEEDINGS will be available for purchase in a few months' time of the inaugural meeting of the International Ship Structures Congress, held in the Naval Architecture Department at Glasgow University on September 19, 20 and 21 under the chairmanship of Professor J. F. C. Conn. The total attendance at this meeting numbered 70, with representatives from Belgium, Denmark, Finland, Great Britain, France, India, Italy, Japan, Netherlands, Norway, Poland, Sweden, U.S.A., U.S.S.R., West Germany and Yugoslavia. All the major classification societies and many research establishments were represented. The reports of three committees ("Wave Loads", "Response to Wave Loads" and "Planning a Long Range Research Programme on Ship Structural Design") were discussed. On the basis of the work of these committees, new committees were appointed. Various reviews on the present state of knowledge on a variety of subjects were presented at the Congress, including low-cycle fatigue, hull vibration, orthogonally stiffened plate fields, superstructures, dynamical pressures in oil tanks and the design of large tankers.



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Glass Reinforced Plastic Boats

RESULTS OF ADMIRALTY TRIALS

FOR THE past ten years the Royal Navy has been evaluating the use of glass reinforced plastic for boats under 30ft in length, as a result of which G.R.P. construction up to this length is now contemplated where numbers will justify the mould cost. The design of larger boats in G.R.P. is under consideration.

Trials carried out with glass reinforced plastic boats during the last ten years have covered craft from 9ft to 27ft in length, operated at speeds of from six to 16 knots. Experience has been gained with resin and reinforced material on G.R.P., composite, sandwich, round bilge and hard chine designs. Exhaustive testing of boats using both cold-set and hot-set construction has been carried out all over the world in HM ships.

One of the great advantages and financial saving accruing from the use of G.R.P. boats in the Navy is the resultant release of manpower which would otherwise be engaged in HM Dockyards on the removal and maintenance of timber used in traditional wooden boats. A further saving would be made with G.R.P. by abolishing the present need for sheathing of wooden boats used in tropical waters to combat worm and microbe attacks. Apart from the obvious savings of men and money on maintenance, the adoption of G.R.P. in small boat construction in the Navy would mean resultant increases in the speed and ease with which boats can be repaired both on board and at shore bases, compared with the wooden boats, where removal of considerable amounts of planking is often necessary.

One of the main disadvantages was the decline in appearance of the G.R.P. boats after considerable use in Fleet service, but recent paint tests carried out by Admiralty research establishments have established that this can be overcome for all except the fast planing boats by traditional brush painting.

Early Experience

Admiralty experience of G.R.P. boats began in 1951 when two commercial dinghies were purchased. The first was a 9ft 3in boat weighing 96 lb, using resin bonded glass and diagonal mat cold lay-up construction, and the other a 7ft 7½in boat weighing 90 lb and using resin bonded glass and swirled mat hot-set construction. These were tested initially over a period of six months by

Captain, Coastal Forces, who reported that there had been no difference in their ultimate strength and no repairs had been needed. One dinghy was carried by an RN yacht for the New York-Bermuda race in 1952.

To gain further experience with cold and hot-set constructions, two 20-ft motor dories (landing craft personnel, small) were ordered and successfully tested by the Amphibious Warfare Services. One was constructed using the brush-on method over a female mould, the other using the heated pressure bag hot-set method over an aluminium female mould. These, and further trials, showed that although there was nothing to choose from an operational point of view between cold and hot-set construction, in view of the small number of boats required by the Navy the expensive hot-set method was not justified. Further evaluation was therefore concentrated on cold-set techniques.

The next boat acquired by Admiralty, and now on port auxiliary service duties at Portsmouth after seven years use, was a 25-ft medium-speed motor boat of cold-set construction using shell and frames of G.R.P. with gunwale, hog, keel and stem timber, through bolted. The first five months service with the trials cruiser HMS *Cumberland* in hot weather in the Mediterranean showed that the hull stood up "moderately well" to naval handling and withstood impact as well as wooden hulls. The surface tended to crack and craze, especially along the waterline, and was susceptible to damage by abrasion when coming alongside. From the naval viewpoint a major disadvantage was that appearance of the boat soon deteriorated, where a wooden boat would still have been "smart". It was painted in an attempt to improve appearances but paintwork peeled off below the waterline and rubbed off easily. The G.R.P. continued to abrade easily and the corners of the transom became jagged.

The boat was later issued to the Royal Fleet Auxiliary *Fort Rosalie* and after 2½ years' service it was surveyed (total service 4 to 5 years) with the result: better condition than wooden boat of comparable age; abrasions and deep scores of the hull did not show evidence of ingress of water, delamination or leaching out of the resin; through-bolting of wooden members was not a good feature; impact resistance of glass mat reinforcement was satisfactory for Service use; appearance was poor.



The 25-ft motor boat has been in service for seven years. It is now used by the Port Auxiliary Service at H.M. Dockyard, Portsmouth



One of the two monocoque 27-ft whalers. These boats were built by W. & J. Tod Ltd, Weymouth

From 1959 onwards it was used experimentally for repair and other tests. Large areas of the skin and framing were cut out and repaired by various schemes, bilge keels and spray chines attached by differing resin/glass systems, several paint schemes applied and a new rudder of novel construction fitted. The boat is still perfectly sound.

Direct comparisons between composite and all G.R.P. construction were made with four 27-ft motor whalers obtained in 1957-58. Two were of composite construction and two of monocoque construction. One of each type was issued together with a whaler of timber construction to the aircraft carrier HMS *Victorious*, and the other two were issued to the frigates HMS *Puma* and *Llandaff*. A summary of their trials evaluation is as follows:

HMS Llandaff: Boat used in all climates in Icelandic, Home, Mediterranean, Persian Gulf and Far Eastern waters. Hull superior to conventional hull. Other than slight surface deterioration, G.R.P. hull satisfactory.

HMS Puma: Boat used extensively and well-tried under adverse conditions. G.R.P. hull superior to conventional hull, and boat satisfactory in every way. Damage received would have been much more severe in conventional hull, and in one instance resistance quite remarkable. Main difficulty experienced in keeping boat smart and avoiding patchwork effect of repairs.

HMS Victorious: Only limited use of boats available during trials. Monocoque construction using G.R.P. throughout preferred from cleaning and appearance aspects. Other than slight surface blemish and deterioration G.R.P. satisfactory, repairs quicker and maintenance easier.

Sandwich Construction

Experience has also been gained by Admiralty with the use of plastic sandwich construction on a 16-ft fast motor boat. The hull consisted of expanded PVC $\frac{3}{8}$ -in thick, sandwiched between laminations of G.R.P. This provided inherent buoyancy, a clean internal surface and a degree of rigidity sufficient to allow frames to be dispensed with. The boat was finished in G.R.P. throughout, including canopy, deck and engine case. Service with HMS *Cumberland* showed some lack of adhesion of G.R.P. laminates to PVC core (attributed to constructional techniques) but it was considered that the rigidity of the shell and elimination of frames given by the sandwich method of construction was a sound technique for small boats. There was the usual decline in appearance of the boat and although the abrasive resistance of outer laminate was better than in earlier G.R.P. boats it was still not good enough for Service use.

Following extensive prototype evaluation and modification, the boat was allocated to HMS *Tyne* for further trial as a result of which it was found that the G.R.P. showed no sign of surface deterioration; the non-skid surface of the G.R.P. deck was not adequate; a reason-

able appearance could be maintained by washing with water and detergents.

Other trials or consideration have been, or are still being, given to 52½-ft harbour launches, 9ft 6in and 12ft heavy duty dinghies, 18ft motor boats and 29ft survey boats.

As a result of this ten-years' trial period the Admiralty has formulated a standard repair kit for plastic repairs, which may also be used for semi-permanent plastic repairs to wooden boats.

Due to the reported "fall off" of appearance of G.R.P. boats, Central Dockyard Laboratory, Portsmouth, are still carrying out tests of numerous paint schemes to ascertain the most suitable for G.R.P. application. As yet, a paint scheme for fast planing hulls cannot be recommended.

The conclusions reached by the Admiralty as a result of these exhaustive trials of G.R.P. boats include these:

Glass

1. Low alkali glass is more suitable for marine work.
2. The glass reinforcement prior to use must be dry.
3. Glass mat, although not so strong as glass roving and cloth, is quite satisfactory for boat hulls up to 30ft in length of low or medium speed with inboard engines.
4. The introduction of glass woven roving between layers of glass mat should be considered for craft above 30ft.

Polyester resins

1. Selected resins suitable for marine application should be used.
2. Clear resin for all other than the gel coat of a laminate aids inspection.
3. A proportion of flexibiliser (or a specially prepared resin) is necessary for gel coat resins to prevent surface crazing etc.

Epoxide resins

1. Should be used for securing items after the hull has cured.
2. Is most suitable for use as a repair resin.

Fillers

Fillers in the resin mix, in general, increase water absorption properties, and with particular reference to the gel coat, produce a rigidity resulting in star shakes and other surface blemishes. Their use is not therefore recommended.

Construction

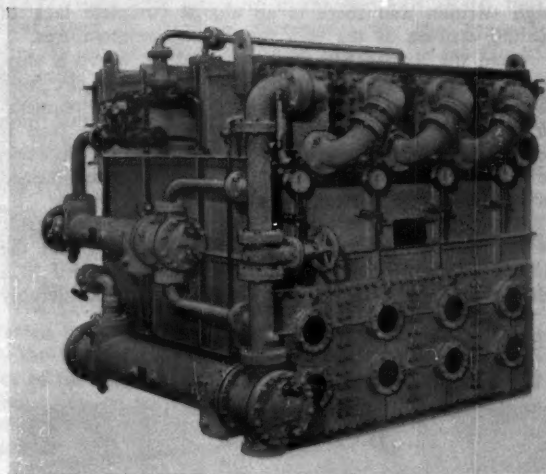
- (a) Cold set hand lay-up techniques are satisfactory, provided that they are carried out under temperature controlled conditions.
- (b) Resin tends to crush around fastenings and it is necessary to place wood, metal pads or special "plastic" washers under the heads and points of through fastenings.
- (c) Use of through fastenings to be kept to a minimum because of seepage along the fastenings. It is preferable to bond resin/glass angles or lugs, etc., on inside of G.R.P. hull for securing purposes.
- (d) Wooden engine bearers are more economical than G.R.P. for Service boats because of alterations often required when re-engining is undertaken.
- (e) Timber and plywood should be used in a G.R.P. hull where it proves to be satisfactory and economic.
- (f) Monocoque construction, i.e. side benches, thwarts, flats and bulkheads, etc., all of G.R.P., should be considered only where very large numbers off are required.
- (g) G.R.P. hulls up to at least 16ft in length can, by use of sandwich construction, be given sufficient rigidity to dispense with longitudinal and transverse framing and buoyant material can be efficiently incorporated.
- (h) G.R.P. decks having a non-slip pattern incorporated in the outer resin layer do not exhibit sufficient non-skid characteristics.

Sea Water Distillation Plant

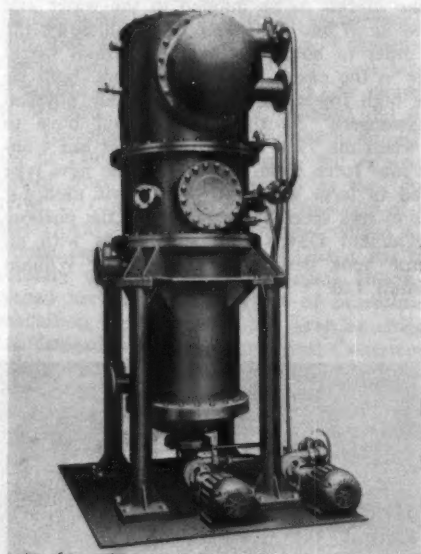
NEW PLANT DEVELOPED BY BUCKLEY & TAYLOR LTD

ENTIRELY new designs of water distillation plant have been developed by Buckley & Taylor Ltd, Oldham, for use on board ship. These were on show recently during an open fortnight to celebrate the company's centenary. One unit on show was the Aquaflash AFI model—the first of its kind to conclude successfully extensive and rigorous Admiralty tests at Portland. It will later be installed in HMS *Manxman*. A similar unit was also installed in the Shell tanker *Velutina* some while ago. It is of simple box construction with all flash chambers and condensers integral, and is suitable for installation in new vessels.

Another flash type distiller has been developed as a replacement unit for installation in ships. Known as the Aquaflash AF2, the plant is a new version of Buckley & Taylor's standard marine Aquaflash plant which it is intended to complement. Although the total space needed by the normal flash plant is small when compared with non-flash contemporary plants of equal efficiency, it is possible to incur fairly high installation costs if such a



The AFI Aquaflash is designed for installation in new vessels



The Aquagenerator can utilise waste heat at any temperature above 120 deg F

plant is replacing another evaporator in an existing vessel.

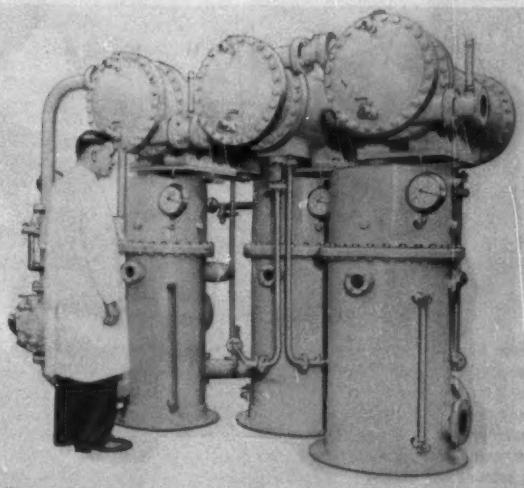
Lowering a normal flash plant of rectangular box construction to its seating low down in the engine room can become a costly undertaking when pipework and other auxiliaries have to be moved. The AF2 unit, embodies all the proved features of the standard plant but is broken down to provide small, low-weight sections. Each flash chamber is supplied as a separate fabrication and simple circular chambers are used. Each vapour condenser is also supplied separately ready for assembly on top of its associated flash chamber.

A wide variety of installation arrangements are made possible by this design. For instance, where there are two possible locations available for a distiller, neither of which is sufficiently large to house the complete plant, the AF2 can be split into sections with connecting pipes, thus making the best possible use of whatever space is available. The plant can therefore be packaged or split

up into separate components and distributed round the engine room to utilise any otherwise waste space.

In its packaged form, its size is roughly the same as that of the box construction plant. The standard range of capacities is from 25 to 50 tons of distillate daily. Other sizes can be made to order. Buckley & Taylor Ltd claim that these units are ideally suitable for marine use as they are extremely economical in use and low in capital cost; they can operate on almost any source of waste heat (steam, hot water, or exhaust gases); they can be started up quickly; are easy to operate; and are entirely self-regulating. Scaling is negligible.

Also new is a compact sea water distillation plant which utilises waste heat at any temperature above 120 deg F. Known as the Aquagenerator, the plant is available in five standard sizes with outputs ranging from four tons/day to 30 tons/day. Other sizes can be made to meet



The AF2 Aquaflash can be fitted into existing ships without difficulty, as it is in separate units

customers' individual requirements. This unit has been primarily designed to utilise diesel engine jacket cooling water at temperatures between 145 deg F and 160 deg F, but other sources of low grade waste heat as low as 120 deg F can be used. Distillation takes place under a high vacuum and there is an almost complete lack of scaling because of the very low boiling temperatures.

When the Aquagenerator is installed on board a ship, sea water from the ship's general service supply circulates through the condenser of the plant so that its temperature rises by a few degrees. The bulk of this feed is returned to the general services while a small proportion is bled off into the evaporator. A vacuum is maintained in the unit by either an air pump or an air ejector.

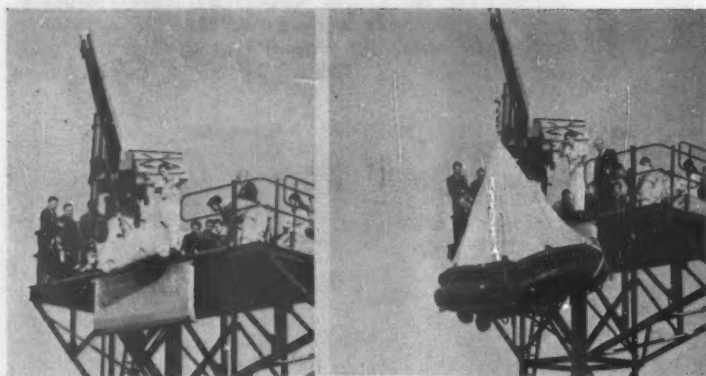
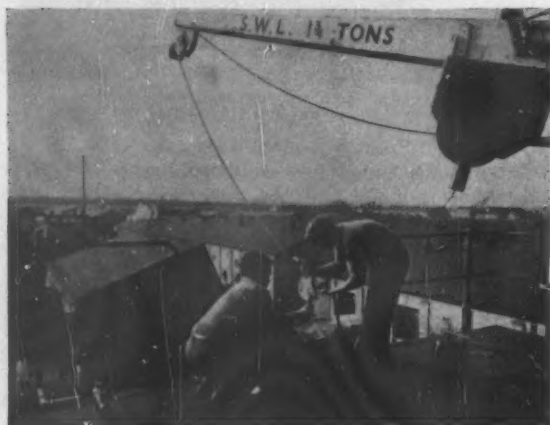
Although the operating principle of the Aquagenerator is widely known, Buckley & Taylor Ltd claim that the design details they have incorporated have resulted in a plant that is far better in many respects and considerably

more compact for equal outputs than other similar plants that are available. For example, the third plant in the range, with an output of 11 to 15 tons/day, has an overall height, including the base plate of 8ft 9in. The overall length is only 4ft 9in, and the total width over the supports is 4ft. All necessary pumps and equipment are contained within these limits. The other unit sizes in the range are similarly compact.

The first consignment of an order for 26 tractors placed by the Bahrain Port Authority have been shipped from the Gloucester factory of the Mercury Truck & Tractor Co Ltd. These diesel-engined Mercury Model 40P tractors will be used for towing trailers carrying loads of from 6 to 25 tons. They are standard production models, fitted with tropical capacity cooling systems, and need no modification although they will be operating under severe tropical conditions of heat and very high humidity.

DAVIT-LAUNCHED LIFERAFT

THE PROTOTYPE was demonstrated last week of a new Dunlop inflatable liferaft which is designed to be launched by davit while inflated and loaded with survivors. This technique is in contrast to the normal practice at present, which is for the liferaft to be inflated in the water and for survivors to jump into the water or climb down the ship's side in order to board it. Such a method would not be possible in the case of passenger liners, both on account of the high freeboard and the variable physical capacity of passengers. As these vessels will have to carry liferafts when the 1960 Safety of Life at Sea Convention comes into force soon, liferafts of the new type will be required in large numbers. The davit used for the demonstration was specially designed for the purpose by Welin-MacLachlan Davits Ltd, and works with an automatic release hook designed and made by William Mills (Sunderland) Ltd.



LAUNCHING THE LIFERAFT

These illustrations show the launching of the raft. In the top photograph the hook is being engaged in the eye at the top of the raft. The next three views show the raft being pushed over the side prior to inflating; inflating itself following a sharp pull on the painter; and safely in the water after lowering. The weight of the raft and its passengers is supported from the top eye by means of nylon webbing tapes spaced at intervals. When the hook is tripped from the raft by pulling a line, it will disengage as soon as the weight of the raft is removed on reaching the water. The davit then automatically recovers the hook through the action of a spring which has been compressed during lowering. The davit is turned out, and the fall can be worked if necessary, by hand.

NEWS FROM OVERSEAS

From THE SHIPPING WORLD'S Own Correspondents

American Shipping Notes

JUST WHEN it was believed that the complex maritime strike which started in June and was halted by a Taft-Hartley "cooling-off" injunction would not be resumed because of settlement by virtually all unions involved, a single unresolved dispute erupted on September 28 on the Pacific Coast, with the threat that 135 ships might ultimately be tied up. The West Coast local branch of the Masters, Mates and Pilots Union, after negotiations broke down with the Pacific Maritime Association, ordered its deck officers off the fleets of 13 companies represented by the Association. By October 1, 25 vessels were reported picketed in Pacific ports, and two passenger sailings from San Francisco had already been cancelled. At the root of the dispute is said to be the fact that only about 600 jobs are available on the coast to the local union membership of about 1,500.

Farrell Lines have purchased a C2-type cargo ship and five smaller vessels to augment its trans-Atlantic and feeder services to the West Coast of Africa. The C2, purchased from the Grace Line, is the *Santa Regina*, built in 1943 as the *Sea Comet*. She will be used in a new direct express service to the Congo and Angola ports. The five small motor vessels, all motorships, were bought from the Monrovia Navigation Company of Lagos, Nigeria, and will be employed in local service between the coastal and river ports of that new republic. They are the *Monaco*, *Mekurdi*, *Adel*, *Mabudi* and *Paola*.

At the conclusion of their fiftieth annual convention, held at Long Beach, California, the American Association of Port Authorities elected as their new president Mr M. C. Cunningham, general manager of the Alabama State Docks Department. Admiral Alfred C. Richmond, Commandant of the U.S. Coast Guard, has received from Secretary of the Treasury, Douglas Dillon, the Distinguished Service Medal, highest of peacetime awards, in recognition of his service last year as chairman of the U.S. delegation at the International Conference on Safety of Life at Sea.

News from Japan

EXPORT ORDERS for 28 vessels totalling 444,260 grt

(682,377 dwt) were approved in the first half of the 1961 fiscal year (1 April-30 September) by the Japanese Ministry of Transportation. The figure exceeded by 5.5 per cent one-half of the 800,000-grt goal set by the Ministry for the whole fiscal year. The orders included seven tankers and four ore-oil carriers totalling 235,000 grt (363,313 dwt) and 10 dry cargo vessels, four bulk carriers and two ore carriers totalling 208,200 grt (318,414 dwt). The United Kingdom, Denmark, India, the Philippines, Hong Kong, Israel, Iraq and Russia were among the countries represented in the orders. The total value of the contracts for the 28 vessels was given as \$103,868,482.

The Sasebo Heavy Industries Co Ltd, which has contracted to build one of two 130,000-dwt tankers ordered by the Idemitsu Oil Co, has purchased part of the facilities of the former naval dockyard at Sasebo which it has been using on lease from the government. The company will continue negotiations for the remainder of the naval facilities.

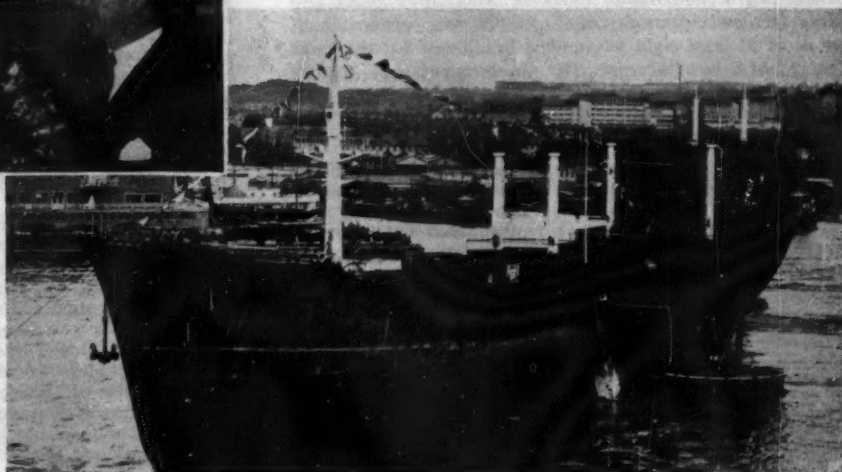
The 650-grt pilot vessel and tug *Mounir*, which is under construction for the Suez Canal Authority, was launched on 7 October at the Kure Shipbuilding & Engineering Co Ltd's yard. The first vessel to be built in Japan for the United Arab Republic, the *Mounir*, is designed for both ocean-going and harbour operations. It is said to be capable of towing ships of up to the 100,000-dwt class, and will have two sets of 1,600-bhp diesel engines, variable pitch propellers and a cruising speed of 15.1 knots. There will be port and starboard and fore and aft control stations, in addition to the usual one on the bridge. Costing Yen 240 mn, the vessel is due to be delivered at the end of January 1962. It will be equipped with salvage and fire-fighting gear.

Nippon Yusen Kaisha has reported that government approval has been granted for a loan of \$4 mn from the Chase Manhattan Bank to help finance the construction of a 47,000-dwt tanker for the company. The terms were given as 5.75 per cent interest annually, with the loan maturing in five years. The tanker, estimated to cost Yen 2,360 mn, is to be laid down in October, launched at the end of March 1962, and delivered at the end of July 1962. The Nagasaki yard of the Mitsubishi Shipbuilding & Engineering Co Ltd was named as the builder. An 18,000-bhp diesel main engine will be installed in the vessel.



LAUNCH OF THE "SILVERLAND"

The cargo ship "Silverland", 11,700 dwt, was recently launched at the Eriksbergs Mek. Verkstads A/B, Gothenburg, for the Angfartygs A/B Tirfing, one of the companies in the Brostrom group. The sponsor, Mrs Erik Lundh, is seen above with Mr Sven Haggqvist, left, managing director of the shipyard, and Mr Dan-Axel Brostrom, chairman of the shipbuilders and managing director of the owners



There was no indication up to the time of writing that this same yard would get an order for an 80,000-dwt tanker from the Anglo-American Shipping Company, of Bermuda, following the breakdown of negotiations for construction of the vessel at a British yard. The company ordered other tankers of this class from the Nagasaki yard of Mitsubishi some time ago, and so far one has been delivered.

A foreign exchange appropriation of \$21 mn for the payment of ship charterage during the second half of the 1961 fiscal year (1 October 1961-31 March 1962) has been approved by the government. It is estimated that 28 tankers, in terms of 20,000-dwt vessels, and 1,450,000 dwt of dry cargo vessels will have to be chartered from foreign owners during the period. The appropriation is \$5,655,000 less than that for the first half of the fiscal year and \$4,719,000 less than that for the last half of the 1960 fiscal year.

The principal reaction in Japan to the revised Bonner amendment to the U.S. Shipping Act becoming law was a resolution by the Ministry of Transportation and shipping circles to call for the abolition of this controversial law. The matter is expected to be discussed at the forthcoming conference of the Japan-U.S. joint committee on trade and economy to be held in Japan.

Argentine New Construction Programme

PLANS have been approved by the Argentine Government for the modernisation of the fleet of the Argentine State-controlled shipping company, Empresa Lineas Maritimas Argentinas. Reporting this, the Bank of London & South America states that the first stage, which will be completed by the end of 1964, will cost 7,247.2 mn pesos. Of this total, 6,232 mn pesos will be spent on the construction of 14 fast cargo ships of 8,000-8,500 tons gross. Argentine yards will build three of these ships. (The 10 ships at present under construction abroad are not included in these figures.) The remaining 1,015.2 mn pesos will be used to buy or convert two trans-Atlantic passenger ships of 9,000 tons gross and to buy four cargo vessels of 5,000 tons gross. Part of the funds required will be obtained from the sale of 42 ships (383,526 tons gross) built between 1912 and 1950; it is expected that 1,640 mn pesos will be obtained in this way.

The second stage of the programme, from 1965 to 1970, will cost 17,441.4 mn pesos, to be partially financed by the sale of 18 ships (122,890 tons gross) built between 1936 and 1951. Argentine yards will be entrusted with the sole execution of this stage, during which the following 34 ships will be built: 19 fast cargo ships of 8,000-8,500 tons gross, 10 refrigerated cargo ships of 4,000-5,000 tons gross, two trans-Atlantic liners of 8,000 tons gross and three refrigerated cargo ships of 9,000 tons gross. Credit terms of at least eight years must be offered for the ships that ELMA is to acquire. The Government may give its guarantee to the contracts signed by ELMA.

In Brief

WORK is to start next year on an expansion of the existing ship-repair yard at Constanza, Rumania, which can handle ships of up to 10,000 tons, so that it will be possible to build there ships of up to 35,000 tons, probably two at a time. The Constanza is Rumania's only shipyard on the Black Sea, and construction at other yards, on the river Danube, is limited to the maximum of 10,000 tons which will shortly become possible at the largest of these, at Galatz.

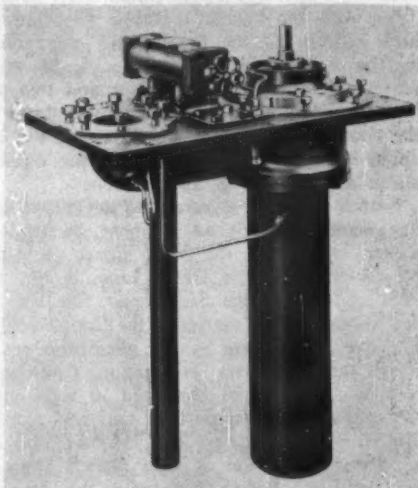
RUSSIAN ice-breakers, including the nuclear-powered *Lenin*, which are used on the Northern route round Siberia during the summer months, are to be made available in winter for keeping the ports of Leningrad, Riga, Zhdanov and Vanino open all the year round, and for the extension of navigation at Archangel by 2-3 months.

RECENT TECHNICAL DEVELOPMENTS

IMO Pumps for Tank Mounting

A NEW design of IMO pump for tank mounting, called the K.E.B. range, has been introduced by Mirrlees (Engineers) Ltd, Earl Haig Road, Hillington, Glasgow. These new pumps are installed within the body of the tank with the drive motor and bypass valve above the cover plate. This new design of pump saves space and dispenses with suction piping entirely, with a consequent saving in cost.

Owing to their situation at the suction supply point, the pump load is greatly reduced and in many instances, a smaller



One of the new Mirrlees K.E.B. pumps

pump than previously necessary can be installed. The initial cost of K.E.B. pumps is appreciably less than that of conventional units of equal size. Available with outputs from 74 to 1,320 gall/min, these new IMO pumps are particularly suitable for forced lubrication duties for large turbines and diesel engines, both in marine and power station applications.

Operated Pencil Sharpener

A NEW mains-operated pencil sharpener, the Tombow, has just been introduced by Business Aids Ltd, 185 Goswell Road, London EC1. It is operated by simply inserting the pencil in the machine, which forms a perfect point in under two seconds. The Tombow is styled to harmonise with modern office equipment, yet is solidly constructed for heavy duty in large offices, schools, drawing offices, studios etc. The cast iron casing is base mounted on rubber feet and finished in translucent grey and black. It is fitted with an easily removable clear plastic shavings container. Size: 9in by 4in by 6½in high; weight 5¼ lb; voltage 220-250; wattage 80; frequency 50-60 cycles. Supplied with 5ft of three-core flex. Price 10 guineas.

Thioflex Jointing Compound

A NEW jointing compound known as Thioflex is being marketed by Expandite Ltd, Chase Road, London NW10. It is a two-part material based on Thiokol liquid polymer and specifically formulated for the long lasting, trouble-free sealing of joints in ships, aircraft, floors, roofs, pipes etc. It has various other applications where a flexible and tenacious joint is required, which is also resistant to extremes of temperature, sun and rain, solvents and gases, and which will withstand vibration and impact shocks. Thioflex can be applied easily by hand, caulking gun or trowelling, and cures to a solid, long-lasting, rubber-type compound which will meet the most severe jointing demands. Most surfaces require priming before Thioflex is applied. The base compound and hardener are supplied in tins in the correct proportions for use. Once mixing has been completed, curing cannot be prevented, but can be delayed by quick freezing and storing in a refrigerated chamber.

Oil Topics

EUROPEAN OIL TRADE GROWS

THE WEST EUROPEAN oil trade reached a new landmark in the first half of this year when, for the first time, the O.E.E.C. area's half-annual net imports of crude and products exceeded 100 mn metric tons. Reporting this, the Petroleum Press Service states that the increase over January-June 1960 amounted to as much as 12 mn tons, or over 13 per cent, being one of the highest ever recorded for a comparable period. Moreover, figures of net oil imports—defined as all shipments into the area, less the area's overseas exports—mask the much bigger total volume of crude and products moved into, from and between European countries. In January-June 1960 these total movements reached about 113 mn tons, and they rose to about 125 mn tons in the first six months of this year. As always, the recent expansion of Europe's oil trade reflects steep increases in demand. During the 1950s, inland consumption of all products in the O.E.E.C. area rose on average by more than 12 per cent annually, and the increase in the first half of the current year, compared with the first half of 1960, was again of a similar order. A feature of the European oil industry in 1960 was the adding of nearly 25 mn tons of refining capacity during the year. In consequence, supplies of crude for use in European refineries went up from 84.4 mn tons in January-June 1960 to 100.6 mn tons in January-June 1961, with net imports of products declining from 13 to 9.5 mn tons. The U.K. takes first place among European importers both of crude and products, though British products imports fell from 7.2 mn tons in January-June 1960 to 5.8 mn tons in January-June 1961. The Netherlands is well established as Europe's leading exporter of petroleum products, followed by Italy, with France and the U.K. now taking third and fourth places respectively.

Work Barge for Abu Dhabi

THE LATEST vessel to be launched from the Wallsend Yard of Swan, Hunter & Wigham Richardson is a work barge for British Petroleum. It was intended that it

should be launched without ceremony, but the lever was in fact pulled by Mr Marples during his surprise visit to the yard. The barge, *Adma Constructor*, is for use by Abu Dhabi Marine Areas Ltd, the BP subsidiary engaged in drilling in the waters of the Persian Gulf off the coast of Abu Dhabi, which is one of the Arabian sheikhdoms. Drilling has been in progress since 1958, the work having been carried out by the drilling barge *Adma Enterprise*. This is a craft which moors itself by extending four spuds from its four corners down to the sea bed, and which carries a drilling rig. The *Adma Constructor* is similar in most respects, but instead of the drilling rig it has a 100-ton crane. A number of successful wells have now been drilled by the *Adma Enterprise*, and these are to be brought into production next year. To do this, towers have to be placed over the wells, and this will be done by the new work barge. It will also be used for servicing the wells later. The barge is 195ft long and 95ft wide, with spuds 8ft in diameter. Comfortable accommodation is provided for the crew, while a helicopter platform allows communication to be maintained with the shore. The barge is not self-powered, but auxiliary power is provided by three 250-kW diesel generators.



RECENT SHIP SALES

MOTOR TANKER *Loyola* (ex-Norlys, 9,717 grt, 6,041 nrt, built Hamburg 1936 by Deutsche Werft A.G.) sold by Corona Shipping Corporation, Monrovia, to Japanese shipbreakers for \$315,000 with December delivery at a Japanese port.

Cargo steamer *Corferry* (1,788 grt, 1,003 nrt, built Burntisland 1937 by Burntisland Shipbuilding Co Ltd) sold by Wm. Cory & Son Ltd, London, to Belgian shipbreakers for £15,700 with end-October delivery Continent.

Twin-screw cutter suction dredger *G.F.H.* (ex-Sir George Lloyd, 1,142 grt, 440 nrt, built and engined Renfrew 1921 by Wm. Simons & Co Ltd) sold by Melbourne Harbour Trust Commissioners, Melbourne, to Hong Kong shipbreakers.

Twin-screw cable steamer *All America* (1,918 grt, 880 nrt, built and engined Newcastle 1921 by Swan Hunter & Wigham Richardson Ltd) sold by All American Cables Inc., New York, to other American buyers.

Steam tug *Lowe* (213 grt, built Bremen 1939 by Schiffsw. Unterweser) sold by Norddeutscher Lloyd Line, Bremen, to Achille Lauro, Naples, and to be renamed *Portovenere*.

Cargo steamer *Orabuena* (ex-Paul de Rousiers, 4,882 dwt, 3,248 nrt, 1,930 nrt, built Port de Bouc 1942 by Chant. & Atel. de Provence) sold by Arm. L. Mazzella & Cie., Mar-

seilles, to Finnish buyers for what is reported as about £65,000.

Cargo steamer *Annik* (2,630 dwt, 1,381 grt, 733 nrt, built and engined Tonsberg 1940 by Kaldnes M.V. A/S) sold by Flensburger Trampreeder GmbH (H.P. Vith), Flensburg, to Yugoslav buyers and renamed *Kuciste*. Buyers reported as the Mediteranska Plovidba, of Korcula.

Motor vessel *La Chacra* (9,600 dwt, 6,072 grt, 3,234 nrt, built Sunderland 1953 by Bartram & Son Ltd) sold by Buries Markes Ltd, London, to General Shipping Inc. of Monrovia, for about £450,000 and transferred to the Liberian flag under the name *Arabella*.

Cargo steamer *Atlantic Wave* (ex-Pierre L'Enfant, 10,926 dwt, 7,176 grt, 4,380 nrt, built Baltimore 1943 by Bethlehem Fairfield Shipyard Inc) sold by Atlantic Freighters Ltd, Panama, to Yugoslavian buyers and to be renamed *Mljet*.

Cargo steamer *Aristodimos* (ex-Tassos, ex-Kos, ex-Wartburg, 1,140 dwt, 849 grt, 484 nrt, built and engined Stettin 1920 by Stettiner Oderwerke) sold by Chr. M. Sarlis & Co, Piraeus, to F. Petropoulakos Brothers & T. Katrougalos, Piraeus, and renamed *Benghazi*.

Cargo steamer *Skotfoss* (ex-Makefiell, 2,513 dwt, 1,449 grt, 736 nrt, built Sunderland 1948 by J. Crown & Sons Ltd) sold by Skibs A/S Thor Thoresens Linje, Oslo, to Bratt & Co, Gothenburg for £56,500 on credit terms.

NEW CONTRACTS

| Shipowners | No. of Ships | Type | Tons d.w. (gross) | Dimensions (ft.) L.b.p.(o.a.) x B x D.(dft.) | Delivery | Speed (knots) | Propelling Machinery | Total h.p. | Engine Builders | Shipbuilders |
|---|--------------|-----------------|-------------------|---|----------|---------------|----------------------|------------|-----------------|-------------------------------------|
| Yards in Great Britain and Northern Ireland | | | | | | | | | | |
| Ringdals Rederi A/S, Bergen | 1 | Bulk carrier | 15,000 | — | — | — | B & W diesel | — | — | Shipbuilders Harland & Wolff, Govan |
| Overseas Yards | | | | | | | | | | |
| A/S Det Dansk Franske | 1 | Pass. car ferry | (2,500) | 295.33 x 52.5 x 13.2 | 1962 | 16 | Four diesels | 5,200 | M.A.N. | Adler Werft |
| Cargo Ships El Yam | 2 | Bulk carrier | 30,000 | 620.1 x 81.95 x 34.2 | 1963 | 15.5 | Diesel | 10,300 | M.A.N. | Deutsche Werft |
| U.S.S.R. | 6 | Tankers | 48,000 | 705.42 x 101.67 x 50.9 (38.25) | — | 17.4 | Diesel | 18,900 | Fiat | Fincantieri Group |

LAUNCHES

| Date | Shipowners | Ship's Name and/or Yard No. | Type | Tons d.w. (gross) | Dimensions (ft.) L.b.p.(o.a.) x B x D.(dft.) | Speed (knots) | Propelling Machinery | Total h.p. | Engine Builders | Shipbuilders |
|---|--------------------------------------|-----------------------------|-----------------|-------------------|---|---------------|----------------------------|------------|----------------------|-----------------------------------|
| Yards in Great Britain and Northern Ireland | | | | | | | | | | |
| Sept. 26 | Boston Deep Sea Fisheries | Boston Beaver (465) | Trawler | (165) | — | — | Diesel | — | — | Richards Ironworks |
| Aug. 28 | South Coast Shipping Co. | Sand Snipe (538) | Dredger | (500) | — | — | Diesel | — | — | J. Bolton & Son |
| Oct. 11 | New Zealand Shipping Co. | Piako | Refrig. cargo | 9,750 | 460 (488) x 66 x 41 (28.1) | 16 | 8-cyl Sulzer diesel | 9,750 | Shipbuilders | Alex. Stephen & Sons |
| Overseas Yards | | | | | | | | | | |
| June 30 | U.S.S.R. | Alatyrles (151411) | Cargo | 5,900 (4,500) | 377.25 (406.2) x 54.75 x 27.58 (22.95) | 14.5 | 5-cyl diesel | 4,500 | Sulzer Bros | Stocznia Gdanska |
| July 1 | U.S.S.R. | Lunnik (115011) | Factory trawler | 1,250 (2,600) | 241.1 (278.9) x 45.25 x 23.33 (12.75) | 12.5 | 8-cyl diesel | 2,400 | Sulzer Bros | Stocznia Gdanska |
| Sept. — | Anglo-Pacific Shipping Co. Bermuda | Naess Cavalier (1557) | Bulk carrier | 35,000 | — | 15.5 | 9-cyl UEC diesel | 12,000 | Shipbuilders | Mitsubishi S.B. & E. Co. |
| Sept. 2 | U.S.S.R. | Omsk (3921) | Cargo | 12,000 (10,700) | — | — | B & W diesel | — | Shipbuilders | Hitachi S.B. & E. Co., Sakurajima |
| Sept. 8 | Kashima Kisen Sangyo | Korshiwahana Maru (3934) | Cargo | (1,940) | — | — | Diesel | — | Shipbuilders | Hitachi S.B. & E. Co., Mukaishima |
| Sept. 12 | Nichiro Gyogyo | Chichibu Maru (1022) | Cargo | (5,500) | — | — | Diesel | — | Shipbuilders | Kawasaki Dockyard |
| Sept. 13 | Comissao de Marinha Mercante | Campo Grande (N002) | Cargo | (4,950) | — | — | Diesel | — | M.A.N. | Ishikawajima do Brasil |
| Sept. 21 | Eastern Seas Transport Corp | Corsair (659) | Bulk carrier | 24,000 (15,400) | 56.5 x 79 x 46.67 | — | B & W | 8,750 | Shipbuilders | Mitsui S.B. & E. Co. |
| Sept. 26 | Skips A/S Saphir (Edvin Endresen) | Saphir (59) | Tanker | 5,350 (3,900) | 347.67 x 48.5 x 24.58 (21.2) | 14 | B & W | 3,180 | Akers M.V. | Stord Vaerft |
| Sept. 26 | Dai-kyo Sekiyu K.K. | Tokkai Maru (579) | Tanker | 28,800 | — | 17 | 9-cyl Sulzer diesel | 18,000 | Shipbuilders | Ishikawajima-Marima M.L., Aioi |
| Sept. 28 | Bonaventure Soc. Maritima Financiera | — (38) | Refrig. cargo | 4,550 (5,972) | 456.5 x 55.25 x 37.2 (33.5) | 18.5 | Fiat diesel | 7,200 | Borsig A.G. | Ch. Navals des Flandres |
| Sept. 28 | Biørn Biørnstad & Co. | Beau (148) | Tanker | 28,000 (18,500) | 625 x 81 x (33.5) | 16 | Geared turbine | 12,000 | Marimonts Hovedverft | Kaldnes M.V. |
| Sept. 28 | Angfartys A/B Tifring | Silverland (482) | Cargo | 11,700 (6,310) | 430 x 60 x 28.5 (29.42) | 15 | 5-cyl B & W diesel | 5,200 | Shipbuilders | Eriksbergs |
| Sept. 29 | Govt. of Canada | Confederation (28) | Ferry | (2,400) | 259 x 60 x 20 (13) | 13 | Quad.-scr. diesel-electric | 5,200 | Ruston/Westinghouse | Halifax Shipyards |
| Sept. 30 | Black Star Line, Ghana | Birim River (313) | Cargo | 9,400 (7,575) | 409.5 x 60 x 36 (27.5) | 15 | Sulzer diesel | 4,500 | Shipbuilders | Kon. Mij "De Schelde" |
| Oct. 3 | Ove Skou | Maren Skou (1116) | Cargo | (7,200) | — | — | Diesel | — | Shipbuilders | Kieler |
| Oct. 3 | Deutsche Afrika Linien | Tanganyika (783) | Cargo | 13,500 (8,500) | — | 17.5 | Diesel | 8,400 | — | Howaldtswerke Deutsche Werft |
| Oct. 5 | D. G. Neptun | Nereus (893) | Cargo | 6,445 (4,800) | 379.5 x 52.5 x 31.75 (24.95) | 16.3 | M.A.N. diesel | 5,400 | Shipbuilders | Bremer Vulkan |

TRIAL TRIPS

| Date | Shipowners | Ship's Name and/or Yard No. | Type | Tons d.w. (gross) | Dimensions (ft.) L.b.p.(o.a.) x B x D.(dft.) | Speed (knots) | Propelling Machinery | Total h.p. | Engine Builders | Shipbuilders |
|---|------------------------------|--------------------------------|-------------------|-------------------|---|---------------|-----------------------------------|------------|------------------|----------------------------------|
| Yards in Great Britain and Northern Ireland | | | | | | | | | | |
| Sept. 29 | Corporation of Trinity House | Stella (2007) | Lighthouse tender | (1,425) | 205.42 (221) x 37.5 x 23.5 | — | Tw.-scr. diesel-electric | 1,450 | English Electric | J. Samuel White & Sons |
| Oct. — | Palagic Trawling Co. | Blacktail (510) | Trawler | (237) | 115.5 x 25 | 11 | Two Maybach diesels | 788 | Bristol-Siddeley | T. Mitchison |
| Oct. — | Mersey Docks & Harbour Board | Mersey Compass (432) | Dredger | 2,200 | 275 x 40.5 x 19 | 13.25 | Tw.-scr. diesel-electric | 1,000 | Paxman/G.E.C. | Ferguson Bros. |
| Oct. 5 | Aberdeen Near Water Trawlers | Mannofield (898) | Trawler | (225) | (117) x 23.75 x 12 | — | 5-cyl. diesel | — | National | Hall Russell |
| Oct. 9 | Dominion Steam Fishing Co. | Priscillian | Trawler | (300) | 120 (133.42) x 25.5 x 12 | — | 12-cyl. Brons diesel | 780 | Drypool | Cochrane & Sons |
| Overseas Yards | | | | | | | | | | |
| June 30 | U.S.S.R. | Durrezi (131072) | Cargo | 5,000 (4,180) | 331.5 (355.2) x 49.75 x 26.25 (12.9) | 12.5 | Steam recip. with exhaust turbine | 2,500 | Zgoda | Stocznia Gdanska |
| June 30 | U.S.S.R. | Krasnaja Gorka (162009) | Fish mother ship | 9,300 (11,450) | 465.9 (509) x 65.58 x 38.1 (26.95) | 13 | Tw.-scr. steam recip. | 5,000 | Zgoda | Stocznia Gdanska |
| June 30 | U.S.S.R. | Sovietskaja Kamczatka (162010) | Fish mother ship | 9,300 (11,450) | 465.9 (509) x 65.58 x 38.1 (26.95) | 13 | Tw.-scr. steam recip. | 5,000 | Zgoda | Stocznia Gdanska |
| June 30 | U.S.S.R. | Admiral (151407) | Cargo | 5,900 (4,500) | 377.25 (406.2) x 54.75 x 27.58 (22.95) | 14.5 | 5-cyl. diesel | 4,500 | Sulzer Bros. | Stocznia Gdanska |
| Aug. 31 | U.S.S.R. | — (151408) | Bulk carrier | 5,900 (4,500) | 377.25 (406.2) x 54.75 x 27.58 (22.95) | 14.5 | 5-cyl. diesel | 4,500 | Sulzer Bros. | Stocznia Gdanska |
| Sept. — | Sea Enterprises Corp. Panama | Delphic Miracle (3813) | Bulk carrier | 21,180 (12,800) | 547.58 x 72.1 x 41.5 (30.5) | 17.6 (T) | B & W diesel | 8,750 | Shipbuilders | Hitachi S.B. & E. Co., Innoshima |
| Sept. — | Soc. Colombia, Genoa | Esso Napoli (245) | Tanker | 48,700 (32,000) | 705 x 102 x (37.67) | 18 | Geared turbine | 19,000 | — | Cant. Navali Riuniti, Ancona |
| Sept. 15 | Lykes Lines | Nancy Lykes (4582) | Cargo | 11,000 (10,000) | 470 x 69 x 41.58 (29.5) | 17 | Geared turbine | 9,900 | G.E.C. | Bethlehem-Sparrows Point |
| Sept. 15 | Johs. Larsons Rederi, Bergen | Anne Reed (146) | Cargo | 13,200 (9,300) | 461.25 x 62 x 39.25 (30.25) | 16.78 (T) | G.V. diesel | 6,300 | Shipbuilders | Marinens Hovedverft |

MARITIME NEWS IN BRIEF

MR ERLING H. SAMUELSEN, one of Norway's internationally known shipowners, has died at the age of 69. He was the founder of Erling H. Samuelsens Rederi A/S at Koppang, Oslo. He was an Honorary Vice-President of the Baltic & International Maritime Conference as from 1947.

MR A. H. C. GREENWOOD is to be manager, aircraft sales and service, British Aircraft Corporation. Mr D. J. Lambert is now technical sales manager (civil aircraft) and Mr J. R. Ewans is technical sales manager (military aircraft).

MATSON NAVIGATION COMPANY have appointed Mr W. Sternberg as vice-president of the passenger division of the company. Mr Sternberg has been president of Aviation Consultants Inc, which specialises in aviation and travel consulting work, and a consultant to South Pacific Airlines.

MR RICHARD W. WISMAR has been appointed secretary of Delta Line (Mississippi Shipping Co Inc). In his new position, Mr Wismar succeeds Mr J. M. Duffy who died in July. Mr Wismar has served as assistant auditor and assistant secretary, prior to his new appointment.

SIR HAROLD SNOW will be retiring as a deputy chairman and a managing director of the British Petroleum Co Ltd at the end of the year, but will remain on the board.

CAPTAIN R. B. MADDEN has been appointed vice-president, engineering, American President Lines. Mr Madden succeeds Mr G. T. Paine, who has retired.

THE DEATH has occurred of Mr J. H. Hodder, a director of James & Hodder, the Bristol shipbrokers, and chairman of the Bristol Channel District Association of Chartered Shipbrokers.

MR E. P. J. LUNCH has been appointed chief accountant to the Port of London Authority.

SIR DONALD PERROTT has been elected a director of Cammell Laird & Co Ltd, and chairman of the Patent Shaft Steel Works Ltd.

THE DEATH has occurred of Mr Graham Ackerley, head of the shipping agency firm of Benjamin Ackerley & Son Ltd, and deputy chairman of Southampton Harbour Board.

MR BASIL PARKES, Sheriff of Hull and managing director of the St Andrews Steam Fishing Co Ltd, has become a member, and for the time being chairman, of the board of the United Towing Company Ltd. Mr Parkes is one of three additional directors appointed in a reorganisation of the board. The other new members are Mr R. P. Ross (a director of the St Andrew's Steam Fishing Co Ltd) and Mr J. C. Ashburn.

THE DEATH has occurred of Comm. Rag Aldo Martines, managing director of O.A.R.N., of Genoa. He was 61.



TRANSPORT FERRY SERVICE APPOINTMENT

MR MICHAEL K. BUSTARD (left) has been appointed a director and general manager of the Atlantic Steam Navigation Co Ltd and Frank Bustard & Sons Ltd in succession to his brother MR JOHN H. BUSTARD (right) who is being transferred from the former family business to take up an appointment as Chief Shipping and Irish Traffic Manager of the London Midland Region of British Railways. The British Transport Commission now controls the Transport Ferry Service

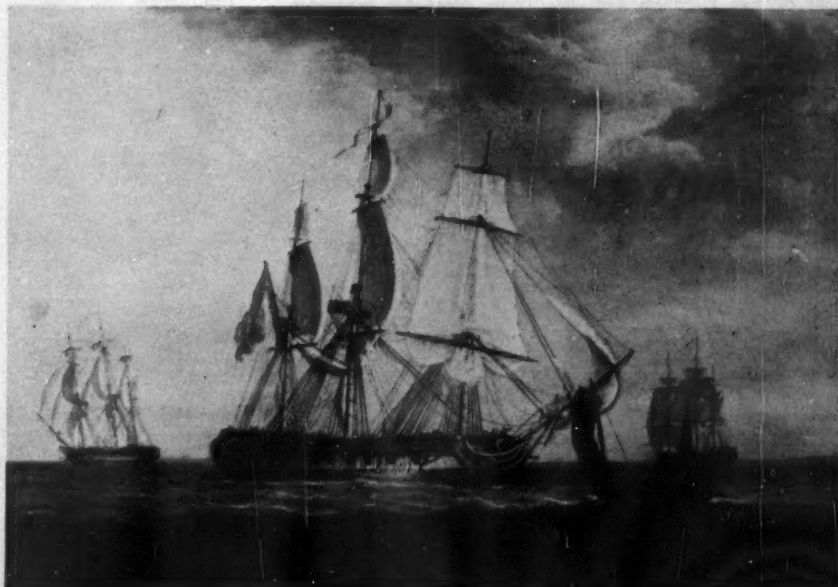
CAPTAIN P. J. BAKKER, a director of Stoomvaart Maatschappij "Nederland" of Amsterdam has died at the age of 73. After 38 years of service afloat with the company, including 22 years in command, he retired from active service in 1943 and was appointed a director in 1946.

A SEA-GOING hydrofoil passenger diesel ship has made her maiden voyage on the Black Sea. The ship, named *Mir*, and which can accommodate 92 passengers, has a speed of about 45 miles an hour and can negotiate a rough sea.

* * * *

THE number of vessels transiting the Suez Canal during July amounted to 1,475, totalling 15,337,808 nt, with a daily average of 47.6 transits, against 1,499 vessels totalling 15,123,484 tons and a daily average of 48.4 transits in July 1960. 754 tankers transited the Canal against 783 in July 1960. Whereas the drop in number was equal to 3.7 per cent,

The National Maritime Museum's Christmas Card for 1961 is to be a reproduction of a painting of the frigate "Triton." The original is a small oil painting in the Greenwich Hospital Collection which was painted by Nicholas Pocock in 1797. Pocock (1741-1821), who had served as a merchant captain and a master R.N., was the best English marine painter of his generation. The cost of the cards is 10s per dozen (post free), and orders with remittances should be addressed to H.M. Stationery Office, P.O. Box No 569, London SE1





MARCONI MARINE APPOINTMENTS

The appointment of Sir Gordon Radley as chairman, and Mr D. P. Furneaux as managing director designate, of the Marconi International Marine Communication Co Ltd, was announced in last week's issue. SIR GORDON RADLEY (left) succeeds Lord Nelson of Stafford. He has also been appointed chairman of the English Electric Valve Co Ltd, chairman of Marconi Instruments Ltd and deputy chairman of Marconi's Wireless Telegraph Co Ltd. He previously spent nearly 40 years in the Post Office, a career which culminated in his appointment as Director General of the General Post Office in 1955. He retired from that position in 1960. MR D. P. FURNEAUX (right) succeeds Mr R. Ferguson who has been with the company since 1910, but is remaining a director. Mr Furneaux was appointed a management executive in 1955 and general manager in 1959.

net tonnage increased by 2 per cent (11,108,000 tons against 10,888,000 tons).

CARGO TONNAGE handled by the port of Los Angeles in the fiscal year ending 30 June 1961 totalled 25,275,706 tons, an increase of 333,694 tons over 1959-60. There were 4,551 ship arrivals compared with 4,618 in the previous year.

THE Koninklijke Nederlandsche Maatschappij voor Havenwerken, Amsterdam, has acquired the contract for the construction of an oil terminal for a refinery in Port Stanvac, near Adelaide. The Standard Vacuum Oil Company announced that the port installations there will be accessible for tankers of up to 87,000 dwt.

ALLEN WEST & CO LTD, electric motor control gear manufacturers, have acquired a 56,000 sq ft Government-built factory at Newtownards, Co Down. The factory—formerly occupied by Lee Guinness Ltd—has ample room for expansion and will immediately go over to the assembly and wiring of standard Allen West contactor panels.

THERE WERE 917 vessels of 1,000 grt and over in the active oceangoing U.S. fleet on August 1, 296 more than the number active on July 1. The excessive variation was due to the return to service of vessels tied up by the strike in effect during July. There were 38 Government-owned and 879 privately-owned ships in active service. These figures did not include privately-owned vessels temporarily inactive, or Government-owned vessels employed in loading storage grain. They also exclude 23 vessels in the custody of the Departments of Defence, State, and Interior, and the Panama Canal Co.

AUSTIN & PICKERSGILL LTD has commenced work on the modernisation of the Wear Dockyard, Sunderland. Among other things, two new tower cranes of the cantilever type are to be built, and production lines in the workshops improved. Owing to its situation, space for expansion is restricted, and the yard will concentrate on the building of smaller types of vessel.

THE NAME of J. D. Hewett & Co (West End) Ltd, has been changed to J. D. Hewett (Travel) Ltd.

A MILESTONE in Scandinavian Airlines System's history was reached on September 23 when the airline completed 15 years of scheduled service over the North Atlantic. In the past decade

and a half SAS has carried more than 675,000 passengers and 16,000 tons of cargo and mail between Europe and North America.

THE SWEDISH MERCHANT NAVY comprised 1,431 vessels of 3,875,000 grt at the end of August. This means a net decrease in the number of ships of nine, but an increase in tonnage of 14,750 tons. Since the beginning of the year the number of vessels has dropped by 55, while the tonnage has risen by 24,000 tons.

A FLOATING DOCK constructed for Centrala Morska Importowa—Eksportowa P.P. (Centromor) of Warszawa, Poland, was successfully launched last week at the Haverton Hill Shipyard of Furness Shipbuilding Co Ltd. This is the sixth floating dock to be constructed by the builders and has been constructed to the design of Clark & Standfield, London. The dock is of the double-sided box (non-selfdocking) type for operation by Zjednoczenie Morskich Stoczní Remontowych (United Ships Repair Yards) at the port of Szczecin in Poland.

THE new 55,000-tons liner *France* has been insured for 330 million new francs (about £24 million sterling)—said to be the largest insurance contract ever signed for a ship. The insurance has been spread over some 230 companies, including many foreign firms working in France.

THE 78th Session of the North East Coast Institution of Engineers & Shipbuilders began with the official opening general meeting held on October 16 in the Lecture Theatre of the Literary & Philosophical Society, Newcastle upon Tyne. The next meeting, which will take the form of the Andrew Laing Lecture, will be held on October 30. The lecture this year is entitled "Aspects of Research in Marine Engineering" and is to be given by Dr A. W. Davis, deputy managing director of the Fairfield Shipbuilding & Engineering Co Ltd.

A CAPTAIN'S TABLE resplendent with Ross frozen foods was the centrepiece of a cocktail party given by the Ross Group at the Savoy Hotel for the London Shipping Companies recently. The guests were received by Mr J. Carl Ross and other directors present included Mr A. S. Alexander, Mr. H. A. Bateson and Mr R. Haynes. The film "70° North" which was also presented, showed the life on board a trawler fishing in the Arctic. This film has won several awards.

A RADAR OBSERVER COURSE leading to the issue of a certificate of proficiency as radar observer in a form approved by the Ministry of Transport is now available at Robert Gordon's Technical College, Aberdeen.

FIFTY YEARS AGO

From THE SHIPPING WORLD of 18 October 1911

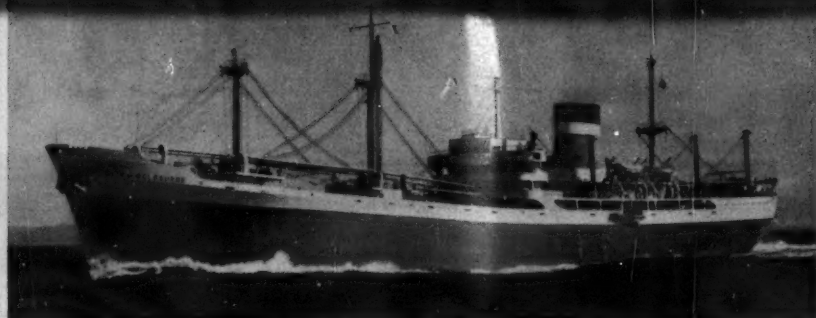
The twin-screw steamer *Zealandic*, built by Messrs. Harland & Wolff, Ltd., Belfast, for the White Star Line Australian service, left Belfast, after satisfactory trials, for Glasgow on October 12. She is 477 ft. long by 62 ft. 9 in. beam, about 8,000 tons gross, and has been specially designed for the trade. She has two holds for general cargo, and four insulated for frozen cargo. There is accommodation for first-class passengers, with a saloon on the bridge deck. The smoke-room is also on the bridge deck adjoining. Accommodation is specially arranged for over 1,100 third-class passengers in enclosed rooms, with space on shelter deck for third-class smoke-room and dining-room, and a third-class ladies' room. The propelling machinery consists of two sets of quadruple-expansion engines on the balanced principle.

The death of Sir William John Crossley, Bart., which took place on Thursday after a brief illness, is a serious loss to the city and port of Manchester. As head of the engineering firm of Messrs. Crossley Brothers, Ltd., which he founded along with his brother, after completing an apprenticeship with Messrs. Sir W. G. Armstrong & Co., Newcastle, his career in the engineering world has been one of extraordinary success. Sir William J. Crossley was also one of the original directors of the Manchester Ship Canal Company.

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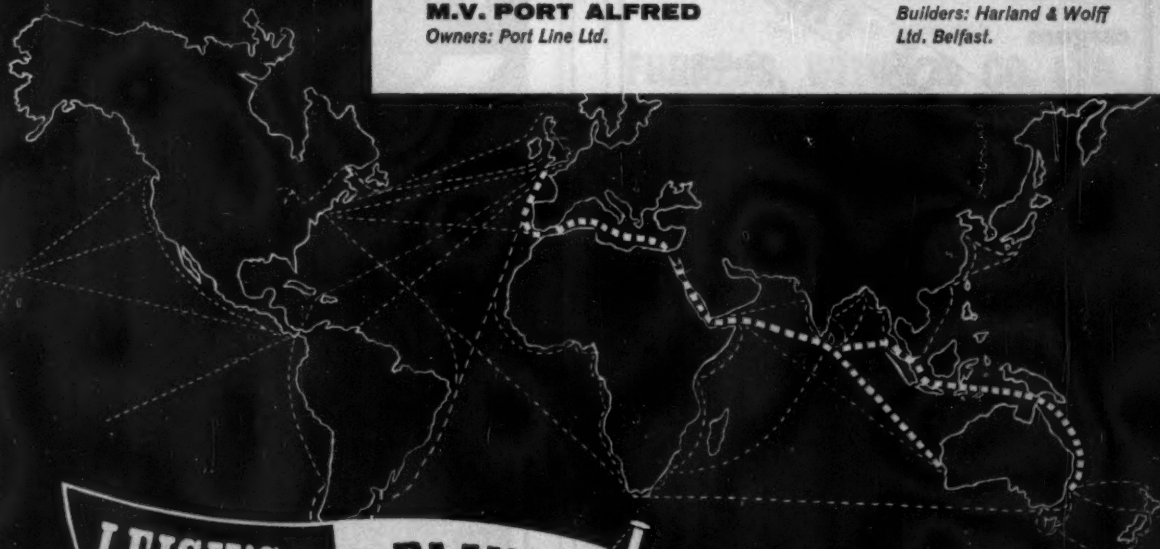
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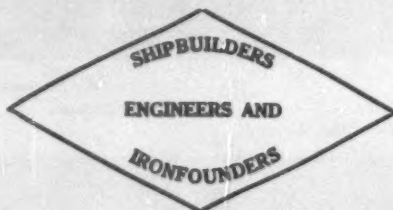
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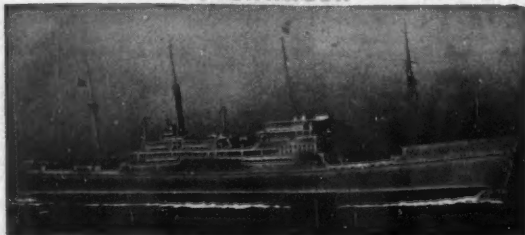
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INDEX TO ADVERTISERS IN THIS ISSUE

| | Page |
|--|-------------|
| Agence Maritime Internationale | A19 |
| Associated Electrical Industries Ltd., Electronic Apparatus Division | A8 |
| Bibby Bros. & Co. | A17 |
| Blundell & Crompton Ltd. | A12 |
| B.P. Trading Ltd. | A5 |
| British & Commonwealth Shipping Ltd. | A19 |
| Caltex (U.K.) Ltd. | A11 |
| Coast Lines Ltd. | A16 |
| Cory & Sons Ltd., Wm. | A5 |
| Decca Radar Ltd. | A3 |
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| French Somaliland Shipping Co. Ltd. | A19 |
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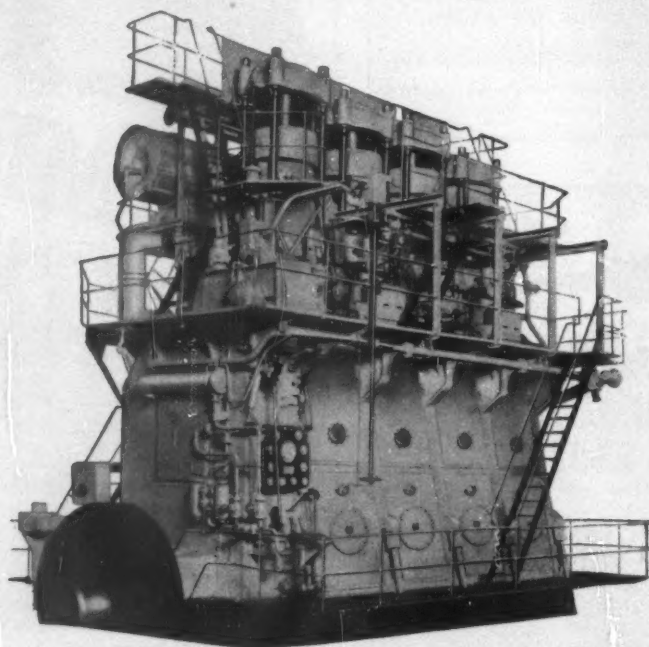
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